

Characteristics of the Population

GENERAL

This report presents the major portion of the information on the population of the United States as a whole compiled from the 1960 Census of Population. It contains the four chapters, A, B, C, and D, previously published as paper-bound reports in the PC(1)-A, PC(1)-B, PC(1)-C, and PC(1)-D series of the 1960 Census of Population. The statistics in chapters A and B are from the complete count, whereas those in chapters C and D are from the 25-percent sample of the population. Most of the data that are presented for the United States in this volume have been presented for each State, as well as for many of the constituent parts of the State, in the State parts of the volume.

Chapter A, "Number of Inhabitants," includes tables 1 to 41 and furnishes statistics on the number of persons in the United States and its urban and rural parts, places classified by size, regions, divisions, and States and their urban and rural parts, counties, county subdivisions, incorporated and unincorporated places, urbanized areas, standard metropolitan statistical areas (SMSA's), State economic areas, and economic subregions. Selected statistics are also presented for the Commonwealth of Puerto Rico and for outlying areas under the sovereignty or jurisdiction of the United States.

Chapter B, "General Population Characteristics," comprises tables 42 to 64 and presents the basic demographic statistics on age, sex, race, relationship to head of household, and marital status.

Chapter C, "General Social and Economic Characteristics," comprises tables 65 to 154 and presents inventory statistics on social and economic characteristics. The characteristics shown are farm-nonfarm residence, nativity and parentage, State of birth of the native population, country of origin of the foreign stock, mother tongue of the foreign born, residence in 1955, year moved into present house, school enrollment, level and type of school (public or private) in which enrolled, years of school completed, veteran status of civilian males, relationship to head of household, married couples and families, number of children ever born, employment status, weeks worked in 1959, class of worker, occupation group, industry group, place of work, means of transportation to work, income in 1959 of persons and of families and unrelated individuals, earnings in 1959, and type of income in 1959.

Chapter D, "Detailed Characteristics," includes tables 155 to 308, and completes the presentation of information for the United States in Volume I. It shows detailed categories and cross-classifications (generally by age) of the social and economic characteristics of the population. This chapter contains data on all the subjects treated in chapter C, except mother tongue of the foreign born and year moved into present house. It also includes data on whether married more than once, hours worked, and year last worked.

Although information on five population items—age, sex, race, relationship to head of household, and marital status—was collected on a complete-count basis, the data on these items shown in chapters C and D are based only on persons in the sample.

In addition to showing statistics for the United States as a whole, chapters B, C, and D also include selected summary sta-

tistics for the four regions of the country (Northeast, North Central, South, and West); for the nine groups of States designated as geographic divisions; for States; and for SMSA's urbanized areas, and urban places of 50,000 inhabitants or more. In most of the tables for the United States, figures are presented separately for the urban and rural population in chapter B and for the urban, rural-nonfarm, and rural-farm population in chapters C and D. Because of the amount of detail and cross-classification in the tables, the presentation in chapter D is restricted to the larger SMSA's and cities, generally those with a population of 250,000 or more.

Selected tables in chapters B and C present separate statistics for the urban and rural population by size of place, by residence in the central city or urban fringe of urbanized areas, and by residence in metropolitan or nonmetropolitan areas.

Tables 43, 45, 48, and 67 include data for the United States population abroad, for the Commonwealth of Puerto Rico, and for the principal outlying areas of the United States—American Samoa, the Canal Zone, Guam, and the Virgin Islands. The definitions of the major concepts used for the population abroad and outlying areas were identical with those used for the United States, although the method of processing the data was different.

Statistics are shown in certain tables for 1950 and earlier years as well as for 1960. If comparable statistics from earlier censuses were not available for Alaska or Hawaii or both, the table either does not include historical figures for those census dates or shows figures that are limited to "conterminous United States," that is, to the territory which comprised the United States at the time of the specified earlier census.

A list of the subjects included in this report, showing the type of area and the tables in which they appear, is presented on pages VIII and IX.

RELATED REPORTS

Volume II and III reports.—More detailed cross-classifications of many of the characteristics covered in this volume are presented for the United States and regions in the subject reports of Volume II. In some cases, tables for States and large SMSA's are also included. The Volume III reports show selected characteristics of the population for (1) State economic areas, (2) standard metropolitan statistical areas, (3) Americans overseas, and (4) the population according to size of place where the individual resides.

1960 Census of Housing reports.—In addition to the reports on population, the Bureau of the Census is publishing a group of reports on housing. Housing statistics for approximately the same areas that are covered in this report may be found in 1960 *Census of Housing*, Volume I, *States and Small Areas*, and Volume II, *Metropolitan Areas*.

Current Population Reports.—Data on many of the subjects covered in this report are collected monthly or annually for the United States as a whole by the Bureau of the Census through its Current Population Survey (CPS). This nationwide survey, covering a sample of about 35,000 interviewed households, provides monthly data on employment which are published by the

Bureau of Labor Statistics. The CPS also provides data on income which are published annually by the Bureau of the Census (in Series P-60 reports) and data on migration, education, families, fertility, and other subjects issued annually or less frequently (in Series P-20 reports). This survey provides more limited statistics for regions, but statistics for the State or smaller areas, which are included in the present report, have not been tabulated from the CPS.

Certain differences exist between the levels of the national data from the CPS and from the 1960 and 1950 Censuses. The reasons for the differences include the more extensive training, control, and experience of the CPS enumerators than of the census enumerators; the use of hourly rate payments in the CPS and of piece-rate payments in the census; differences in the extent to which self-enumeration is used; differences in the question wording on some of the items, in the time of year to which the data apply (as for the annual school enrollment figures collected in the October CPS), and in coverage (the CPS covering only the civilian noninstitutional population in months other than March); enumeration of unmarried college students in the CPS at their parental home but in the census at their residence while attending college; differences in the methods used to process the original data into statistical tables; differences in the weighting procedure and in noninterview rates; and differences between the sampling variability in the CPS and in the 25-percent sample in the census. The differences for some of the specific population characteristics are discussed below.

SOURCES OF HISTORICAL DATA

1950 Census.—Most of the statistics for 1950 in this report are based on a 20-percent sample. The following are exceptions: In the distribution of the foreign white stock by country of origin, figures for foreign-born persons are based on a complete count (whereas figures on native persons of foreign or mixed parentage are based on the 20-percent sample). Statistics on country of birth of the foreign born are based on a complete count. Statistics for families and those for married couples without their own households living with nonrelatives are based on Sample F. (Income data for families, however, are based on the 20-percent sample.) Fertility statistics for women ever married 15 to 44 years old are based on Sample C. Nationally, Samples F and C covered about 2.4 percent of the families and women 15 years old and over, respectively. Statistics on unrelated individuals in table 184 are partially based on Sample F. In table 183, statistics for inmates of institutions are from a complete count, and those for other persons in group quarters are obtained by subtracting complete-count data for inmates from 20-percent sample data for total persons in group quarters.

Statistics on employment status (except labor force status by age), occupation, industry, and class of worker are from complete counts. Data for Hawaii on State of birth of the native population, race and nativity, marital status, presence of spouse, and relationship to head of household were obtained from a complete count. All data for Alaska were obtained from a complete count.

Earlier censuses.—Statistics for 1940 and earlier censuses in this report are based on complete counts, with the following exceptions: The 1940 statistics on the native of foreign or mixed parentage in the distribution of the foreign white stock by country of origin, and those on mother tongue of the foreign-born white, are based on a 5-percent sample. Fertility statistics for women 15 to 44 years old are based on Sample C; nationally, this sample covered about 3.3 percent of the women. In table 183 the 1940 data on male heads of households, married, wife present, are from Sample D, which covered about 3.3 percent of the population. The employment status data for 1940 in table 195 are based on a 5-percent sample. Fertility statistics for women 15 to 44 years old for

1910 are based on Sample W, which, nationally, was about an 8.9-percent sample.

For further explanations of historical data based on samples, see publications of the Census of Population for 1950 and 1940, especially *U.S. Census of Population: 1950*, Volume IV, *Special Reports*, Part 2, Chapter A, "General Characteristics of Families," and Part 5, Chapter C, "Fertility."

CHANGES IN DEFINITIONS

The definitions of the major concepts used in the 1960 Census of Population are given in the sections which follow. A few of the definitions used in 1960 differ from those used in 1950. These changes were made after consultation with users of census data and were made in order to improve the statistics, even though it was recognized that comparability would be affected. In some cases the new definitions were tested by the Bureau of the Census in connection with its Current Population Survey and census pretests, and, where feasible, measures of the impact of the change on the statistics were developed.

GENERAL PROCEDURES OF ENUMERATION

Usual place of residence.—In accordance with census practice dating back to 1790, each person enumerated in the 1960 Census was counted as an inhabitant of his usual place of abode, which is generally construed to mean the place where he lives and sleeps most of the time. This place is not necessarily the same as his legal residence, voting residence, or domicile; however, in the vast majority of cases, the use of these different bases of classification would produce substantially the same statistics, although there may be appreciable differences for a few areas.

In the application of this rule, persons were not always counted as residents of the places in which they happened to be found by the census enumerators. Persons in the larger hotels, motels, and similar places were enumerated on the night of March 31, and those whose usual place of residence was elsewhere were allocated to their homes. In addition, information on persons away from their usual place of residence was obtained from other members of their families, landladies, etc. If an entire family was expected to be away during the whole period of the enumeration, information on it was obtained from neighbors. A matching process was used to eliminate duplicate reports for a person who reported for himself while away from his usual residence and who was also reported at his usual residence by someone else.

Persons in the Armed Forces quartered on military installations were enumerated as residents of the States, counties, and county subdivisions in which their installations were located. Members of their families were enumerated where they actually resided. As in 1950, college students were considered residents of the communities in which they were residing while attending college. The crews of vessels of the U.S. Navy and of the U.S. Merchant Marine in harbors of the United States were counted as part of the population of the ports in which their vessels were berthed on April 1, 1960. Inmates of institutions, who ordinarily live there for long periods of time, were counted as inhabitants of the place in which the institution was located, whereas patients in general hospitals, who ordinarily remain for short periods of time, were counted at, or allocated to, their homes. Persons without a usual place of residence were counted where they were enumerated.

Persons staying overnight at a mission, flophouse, jail, detention center, reception and diagnostic center, or other similar place on a specified night (for example, April 8 in some areas) were enumerated on that night as residents of that place.

Americans who were overseas for an extended period (in the Armed Forces, working at civilian jobs, studying in foreign

universities, etc.) are not included in the population of any of the States or the District of Columbia. On the other hand, persons temporarily abroad on vacations, business trips, and the like, were enumerated at their usual residence on the basis of information received from members of their families or from neighbors.

Coverage of citizens of foreign countries.—Citizens of foreign countries temporarily visiting or traveling in the United States or living on the premises of an embassy, ministry, legation, chancellery, or consulate were not enumerated. Citizens of foreign countries having their usual residence in the United States as defined above, including those working here (but not living at an embassy, etc.) and those attending school (but not living at an embassy, etc.), were included in the enumeration, however, as were members of their families living with them.

Date of enumeration.—The date of enumeration for the Census of 1960 was April 1, in accordance with the requirements of the Act of Congress of August 31, 1954 (amended August 1957) which codified Title 13 of the United States Code. The corresponding date for the Censuses of 1950, 1940, and 1930 was also April 1, in accordance with the requirements of the Fifteenth Census Act. The Census of 1920 was taken as of January 1 and that of 1910 was taken as of April 15. For the decennial censuses between 1830 and 1900, the date of enumeration was June 1 and in the period 1790 to 1830 the census date was the first Monday in August. The enumeration date April 1 was selected for recent censuses as a date on which the number of persons away from home would be relatively small and on which the weather conditions favor rather than impede the field work.

Enumeration for the 1960 Census of Population began on April 1, 1960. Eighty-five percent of the population had been enumerated by mid-April; 98 percent by the end of the month. Unfavorable weather conditions in some parts of the country delayed the beginning of enumeration in some areas from one to three weeks.

The fact that the enumeration is spread over a period of weeks, rather than made on a single day, creates certain problems with respect to coverage. Thus, some persons who move during the enumeration period may be missed altogether, since the area in which they originally lived may not be canvassed before they move and enumeration may be completed in the area of their new home by the time they arrive. Conversely, there is the possibility of duplicate enumeration, once at the initial residence and once at their new home. It seems probable, however, that the net result is an underenumeration of these movers. Again, enumerators tend to ignore the explicit date of enumeration and to record information as of the date of their visit. Therefore, in spite of instructions, some infants are included in the census who were born after the census date, and some persons who died after April 1 are excluded. It is believed, however, that the use of the Advance Census Report for the first time in the 1960 Census has reduced these difficulties to some extent.

Area of enumeration.—In the 1960 Census, the areas enumerated were as follows: The United States, the Commonwealth of Puerto Rico, American Samoa, the Canal Zone, Guam, the Virgin Islands of the United States, and some additional small areas under United States sovereignty or jurisdiction. Certain of these latter areas, however, were not enumerated by the Bureau of the Census; the figures on their population were obtained as far as possible from other sources (see table 1).

The 1960 Census also made special provision for the enumeration of members of the Armed Forces of the United States abroad and their dependents living with them, civilian American citizens employed by the United States Government abroad and their dependents living with them, and the crews of vessels in the American Merchant Marine on the high seas or in foreign

ports. This phase of the enumeration was made possible through the cooperative efforts of the Department of Defense, the Department of State, and the United States Maritime Administration, whereby these agencies took the responsibility for the distribution and collection of specially designed census reports for individuals and households. Other persons who were only temporarily abroad were supposed to have been reported by their families or neighbors in the United States. In addition, a serious effort was made to obtain reports for private citizens who were abroad for long periods of time and the total number reporting is given in table 1. Since, however, the reporting was made on a voluntary basis, it is probable that this group was not so well reported as other groups covered by the census. A later report on the characteristics of the overseas population may contain an evaluation of the coverage of these private American citizens.

The data in the 1960 Census on the population abroad were the most comprehensive ever obtained in a decennial census. In 1940, for example, the War and Navy Departments gave to the Bureau of the Census the number of their personnel stationed abroad; and the State Department furnished the number of employees in the diplomatic service abroad and their dependents. The content of the schedules used in the overseas enumeration in 1960 and 1950 was somewhat different from that of the schedules used in the United States, although basic demographic items were covered in both schedules.

In this report the term "United States" when used without qualification refers to the 50 States and the District of Columbia, but excludes outlying areas. In some tables, in order to preserve historical comparability, totals are shown for the 48 States and the District of Columbia. This area is designated as "conterminous United States." For earlier censuses, this term refers to the expanding area of the United States (regardless of status as a State or territory) within the present area of the 48 States and the District of Columbia.

The Census of 1900 was the first at which a complete enumeration was made of the area now comprised within the boundaries of the 50 States and the District of Columbia. Indians living in the Indian Territory or on reservations were not included in the population until 1890, and at earlier censuses large tracts of unorganized and sparsely settled territory were not canvassed by the enumerators. Thus, the sum of the areas enumerated was not always identical with the area included within the legal boundaries of the United States at the respective dates, nor was it always possible to indicate the exact boundaries of the enumerated areas. In the earlier censuses not all of a State or territory was covered by the enumerators but only that part up to the "frontier line" and any large isolated settlements beyond. For example, Iowa Territory in 1840 included all of what is now Iowa and most of what is now Minnesota, but within the Territory the only substantial settlements were in the southeastern corner of what is now Iowa, and hence only this part was covered by the Census of 1840. It is not feasible to make a more exact statement than that the area of what is now Iowa was added to the area of enumeration in 1840. The western part of what is now Minnesota, however, was not included until later.

The Census of 1790 covered areas now embraced in the District of Columbia and the following States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Kentucky, and Tennessee. Large areas in some of these States, however, were not covered in the enumeration. Only about one-fourth of the area of Georgia, for example, was enumerated.¹

¹ For maps showing the distribution of the population at each census from 1790 to 1910, see U.S. Bureau of Census, *Statistical Atlas of the United States*, U.S. Government Printing Office, Washington, D.C., 1914.

The area added at each census to the area of enumeration within the boundaries of the United States may be briefly indicated as follows:

1800.—The area now constituting the States of Ohio, Indiana, Illinois, Michigan, Wisconsin, and the south central parts of Alabama and Mississippi. In that year the area now within the States of Illinois and Wisconsin and a part of the present area of Michigan were included in the Territory of Indiana; and three years later, when Ohio was admitted to the Union as a State, the remainder of the present area of Michigan was added to Indiana Territory. The population shown for Indiana Territory in 1800 was substantially that residing within the present limits of Indiana, Illinois, Michigan, and Wisconsin. The population shown for Mississippi and Alabama in 1800 was that residing within Mississippi Territory as then constituted, which embraced the area now forming the south central parts of the States of Mississippi and Alabama.

1810.—The area now constituting Arkansas, the northern parts of Mississippi and Alabama, and all but the southwestern part of Louisiana and the northwestern part of Missouri. (The remainder of the Louisiana Purchase of 1803 was not enumerated in 1810.) The population shown for Mississippi and Alabama for 1810 included that residing within Mississippi Territory as then constituted.

1820.—The extreme southern parts of Alabama and Mississippi, and the southwestern part of Louisiana. Florida was purchased in 1819, but was not enumerated in 1820.

1830.—Florida.

1840.—Iowa, northwestern Missouri, and northeastern Minnesota.

1850.—Texas, Utah, California, that part of New Mexico Territory now constituting the State of New Mexico with the exception of a small portion of the Gadsden Purchase of 1853, and that part of the Territory of Oregon now constituting the States of Oregon and Washington.

1860.—Dakota Territory (organized in 1861 from the area now embraced within the States of North and South Dakota and those parts of Montana and Wyoming lying east of the crest of the Rocky Mountains and north of the forty-third parallel), the remainder of Minnesota, Nebraska (then including that part of the area now constituting Wyoming which lay south of the forty-third parallel and east of the Rocky Mountains), Kansas, Colorado, Nevada, that part of Washington Territory now constituting Idaho and those portions of Montana and Wyoming lying west of the Rocky Mountains, that part of New Mexico Territory now constituting the State of Arizona (including the greater portion of the Gadsden Purchase of 1853), and that part of the Gadsden Purchase which now forms the southwestern part of New Mexico. The population shown for Washington Territory for 1860 was that within the limits of the Territory as then constituted, which embraced the area of the present States of Washington, Idaho, and western Montana and Wyoming.

1880.—Alaska.

1890.—Indian Territory and Oklahoma Territory (later combined to form the State of Oklahoma) and Indian reservations.

1900.—Hawaii.

Puerto Rico was first included in a Federal decennial census in 1910, and American Samoa, Guam, and the Canal Zone in 1920; but a special census of Puerto Rico had been taken in 1899 under the direction of the War Department, and a special census of the Canal Zone had been taken in 1912 by the Department of Civil Administration of the Isthmian Canal Commission. The Virgin Islands of the United States were first enumerated in a regular decennial census in 1930. A special census, however, had been taken as of November 1, 1917, immediately after purchase of the islands by the United States.

COLLECTION AND PROCESSING PROCEDURES

Sampling was used in the 1960 Census, as well as in the 1950 and 1940 Censuses, to supplement the information obtained from the enumeration of the total population. The population in the sample in 1960 comprised the members of every fourth household and every fourth person who was not a member of a household, i.e., who was living in "group quarters." Later sections discuss the sample design, the methods used to inflate the sample

figures, and the accuracy of the sample data. Text tables give estimates of sampling variability.

The 1960 Census was the first in which self-enumeration was used on a nationwide scale. A questionnaire, entitled "Advance Census Report," (ACR) was mailed to every household in the country. The instructions on the ACR requested that one or more of the members enter on the form the answers to all the questions for each person in the household. The enumerator was instructed to correct omissions and obviously wrong entries by asking the necessary questions. In the sparsely populated areas (with 65 percent of the land area and 18 percent of the population), the enumerator collected the complete-count information and also asked the sample questions at the time of his visit; these are referred to below as the "single stage" enumeration areas. In the rest of the United States, where most of the population lives, the enumerator collected the complete-count information and also left with each sample household, for mailing to the local census office, a Household Questionnaire containing the sample questions to be answered; these areas are referred to below as the "two stage" areas. The partial substitution of self-enumeration for the traditional direct interview has probably affected the nature and extent of errors in the 1960 statistics relative to those in the statistics of earlier censuses. More comprehensive and definitive accounts of the nature and effects of this and other innovations in the 1960 Census procedures will be given in later reports. (Illustrative examples of the ACR and the Household Questionnaire are shown in the section on enumeration schedules.)

The enumerators inspected and copied the answers from the Advance Census Reports and Household Questionnaires to specially designed complete-count and sample forms, respectively, especially designed for electronic processing. (Examples of these forms also appear in the section on enumeration schedules.) Later, at the central processing office in Jeffersonville, Ind., selected items were coded and all of the information was microfilmed. The microfilm was then sent to Washington, where the information was transformed by FOSDIC (Film Optical Sensing Device for Input to Computer) into coded signals on magnetic tape. This tape, in turn, was processed by an electronic computer and related equipment to produce the tables.

The processing of census returns regularly involves the coding of numerous items—such as detailed relationship to head of household, State of birth, and occupation—and the editing of schedules for omissions and inconsistencies. In the 1960 Census, much of the editing was done by the electronic computer, whereas in prior censuses this work had been done largely as a clerical operation. It is believed that this heavy reliance on electronic equipment has improved the quality of the editing but, at the same time, has introduced an element of difference between the 1960 statistics and those of earlier years.

COMPLETENESS OF ENUMERATION

One of the major objectives of a census is to obtain a complete and unduplicated count of the population. The realization of this objective is, of course, difficult. In this country, the length of the enumeration period, the high degree of population mobility, the difficulty of finding many dwelling units, the living habits of apartment dwellers and lodgers in our metropolitan centers, and the inexperience of most of the enumerators, all represent relatively serious problems. In some foreign countries, the canvass is completed in a day or so by means of a radically different organization of the field work. The existence of a continuous population register, the use of self-enumeration, and the use of permanent government employees as enumerators are factors that may make a quick canvass possible. In some foreign countries, everyone must remain at home until the entire enumeration is completed or may move about on the streets only with some form of identification to prove that he has been counted. Even

with such drastic interference with normal activities, some persons are missed, however.

Of course, there are probably differences among censuses with respect to completeness of enumeration, and these differences are due partly to differences in procedures. Accuracy in a census can be increased by using better procedures, but some procedures are so expensive that the improvement would not be worth the added cost.

The enumeration in the 1960 Census, like the enumerations in previous censuses, made use of enumerators who called at each household. There were, however, some notable changes from earlier procedures which were intended to improve coverage and quality of response.

Advance Census Report.—The 1960 Census was the first in which an advance census report was mailed to households on a nationwide basis so that written information for household members would be available when the enumerator called. The ACR contained instructions as to who was to be included; and, since it was available prior to the enumerator's visit, it permitted the members of the household to develop a correct list of persons to be enumerated in the housing unit. It also served to focus attention on questions relating to coverage during the interview conducted by the enumerator. Not all householders filled out the advance report; but many did, and the net effect of the whole procedure was to add to the enumeration situation another factor calculated to increase the completeness of enumeration above that achieved in previous censuses.

Use of listing book.—In addition to the regular census schedule, the enumerator carried a listing book in which he recorded the address, name of head, and number of persons, as he systematically canvassed his district. Since this information was recorded at his first visit (regardless of whether or not anyone was at home), a basic record was established which permitted an adequate control over callbacks and provided a convenient basis for subsequent checking of the enumerator's work. This procedure was designed to reduce losses incident to the failure to make callbacks and to aid in the overall quality control in the enumeration.

Two-stage enumeration.—The two-stage enumeration procedure was also designed to improve coverage. This procedure meant that the first-stage enumerator needed training only on the relatively few 100-percent items; and, therefore, relatively more emphasis could be placed on coverage in his training. Likewise, in the actual canvass, more attention could be given to coverage and the canvass could be completed more rapidly. That this acceleration was achieved is indicated by the fact that in 1960 about 85 percent of the enumeration was completed by April 15, whereas in 1950 the comparable figure was about 67 percent. The concentration of the canvass into a shorter period of time should have reduced the number of movers who were missed altogether or were counted twice.

Quality control of enumerator's work.—The enumeration was carried out under the immediate supervision of crew leaders. Crew leaders generally supervised from 15 to 20 enumerators and were assisted by a field reviewer. In previous censuses, the crew leader had general responsibility for reviewing his enumerator's work, but in the 1960 Census this responsibility was formalized in a systematic quality control procedure and the crew leader was provided with the assistance of a field reviewer. Prior to the beginning of enumeration, the crew leader was instructed to list the first 15 to 25 housing units in each enumeration district (the area assigned to one enumerator) and an additional 10 scattered throughout the area to be covered by the enumerator. He was then instructed to review the work of each enumerator within the first day or two of enumeration. This review was made on the basis of a standard form, which permitted the development of a score for evaluating the enumerator's work and

this initial review included a check of the enumerator's listing against the crew leader's prelisting. On the basis of this initial-review score, the crew leader could determine whether the enumerator should be permitted to complete his enumeration district with only a final review, whether the enumerator needed additional training and further reviews in the course of his work, or whether the services of the enumerator might be dispensed with. It was hoped that this formalized procedure would lead to earlier correction of erroneous practices and to the early dismissal of inept enumerators who, according to previous studies, would otherwise contribute a very large number of errors.

Close-out procedure.—One of the major difficulties encountered in any canvass is the difficulty of finding respondents at home. In some areas there are many households where, even after repeated visits, the enumerator fails to find anyone at home. The effect of these repeated visits, or "callbacks" is, of course, to reduce the enumerator's effective hourly rate of pay (since he was paid on a piece-rate basis), and to postpone the completion of his canvass. As a compromise between these administrative considerations and considerations of complete coverage, a "close out" procedure was used. If no one was home on his first visit, the enumerator was instructed to make two callbacks, and if on the second callback he still found no one at home, his instruction was to obtain and record whatever information he could obtain from neighbors and close out the case. In such cases he was to leave a note at the household informing them that he had enumerated a stated number of persons at the household and asking that the census office be notified if this was incorrect.

In order to prevent the misuse of this close-out procedure, the quality control system provided for a final review of the listing books and those which showed evidence of excessive use of the close-out procedure at the expense of coverage were returned to the field for additional checking.

Special checks.—In the dozen or so large cities in which enumeration had been especially difficult and in which there was an indication that the totals might well fall below the 1950 totals, the general system of quality control was amplified. Listing books were reviewed to determine whether or not there were excessive numbers of vacancies, households with no occupants, or households with one occupant. In all of the enumeration districts where any of these numbers were excessive a field check of the enumeration was made and, if necessary, the enumeration district was completely reenumerated. This procedure was intended to improve coverage, particularly in those areas of large cities where it is difficult to find people at home.

Computer editing.—Finally, in the edit of the complete-count population data on the computer, housing units which according to the housing information were occupied, but for which no population was recorded, were identified, and persons living in neighboring housing units were imputed to the housing unit in question. The procedure added approximately 0.4 percent to the population enumerated.

Other procedures affecting coverage.—In addition to the novel procedures developed for the 1960 Census, there were a number of other standard practices in this field developed in earlier censuses which were used in 1960. Among these may be mentioned the intensive and systematic training of enumerators, providing enumerators with maps of their enumeration districts, special enumeration of places occupied by transients and a check of the forms obtained from transients against the schedule for their usual place of residence, the publication of "missed persons" forms in local newspapers, and finally the preliminary announcements of population totals by district supervisor for the consideration of local officials and the identification and resolution of problems appearing to involve underenumeration.

As a supplement to this local consideration given preliminary figures, district supervisors were requested to wire the prelimi-

nary counts for counties and large cities to the Bureau. These telegraphic reports were checked against available data for the areas in question and explanations of unlikely results were requested from the district supervisors. This procedure then provided insurance against the possibility that there had been gross errors in the preliminary counts.

Evaluation of coverage.—Although there is great interest in the degree of underenumeration in the census, the problem of measuring it is a difficult one, since it involves the development of a standard for comparison which is necessarily hypothetical. Empirical standards which have been used are, like the census, subject to error, and therefore, it is never certain what part of the difference observed between the standard and the census is attributable to errors in the census, and what part is attributable to errors in the standard. For example, the Post-Enumeration Survey of 1950 indicated a net underenumeration of 1.4 percent, a difference presumably attributable to the greater dedication and skill of the enumerators in that survey. On the basis of an independent demographic analysis, however, it seems likely that the true net underenumeration was closer to 3 percent and that the enumeration of the Post-Enumeration Survey had some of the same kinds of limitations as those of the decennial census, although in a lesser degree.

One method of estimating the comparative completeness of successive censuses involves the use of vital statistics and statistics of immigration and emigration in conjunction with the data of successive censuses. Since the population at a given census should represent the population at the previous census plus births and immigration minus deaths and emigration in the intervening period, it is possible, given the necessary statistics, to calculate the expected population on a given census date and to compare it with the enumerated population. If this comparison shows that the expected population exceeds the enumerated population, it may be inferred that the amount of underenumeration in the current census exceeded that in the previous census; if, on the other hand, the enumerated population exceeds the expected population, the inference is that the current census is the more complete one. These inferences, of course, rest on the assumption that errors in the measurement of births, deaths, immigration, and emigration are small in relation to the amounts of comparative underenumeration.

Investigation of the coverage of the 1960 Census from this point of view suggests that the level of underenumeration in that year was not essentially different from the corresponding level of 1950, but that the rate of underenumeration was somewhat less than in the earlier year. Pertinent summary figures are as follows:

Population:	
April 1, 1960.....	179,323,000
April 1, 1950.....	151,326,000
Net increase.....	+27,997,000
Components of change:	
Births (corrected for underregistration).....	40,963,000
Deaths.....	15,808,000
Net movement of aliens and citizens.....	+2,695,000
Net movement of Armed Forces abroad.....	-330,000
Expected net increase, based on births, deaths, and immigration.....	27,720,000
Estimated increase in coverage based on above.....	+277,000

Each of the components of change is subject to some degree of error, which may have an impact on the estimated net undercount. Errors in the intercensal estimates of births, deaths, and military movement are not likely to be of sufficient magnitude to affect the general picture regarding the accuracy of the 1960 and 1950 counts, however. Errors in the civilian immigration data, on the other hand, may be fairly large; and it is not possible to determine the direction or approximate size of the errors.

Although the size of the net immigration component is relatively small compared with that of births and deaths, the uncertainty involved in estimating the size of some of the elements that make up net civilian immigration from abroad is very large.

In the estimate, for example, the net movement of United States citizens (exclusive of those moving between Puerto Rico and the mainland) was assumed to be zero. This movement can be estimated from two different sets of data: (1) Immigration and Naturalization Service figures on sea and air travel; and (2) the census counts of Americans abroad in 1950 and 1960. The first approach shows a net in-movement of 280,000 (assuming a zero balance for the large volume of movement over our land borders). The second approach shows a net out-movement of 172,000. In view of the small net in-movement shown by one estimate and the small net out-movement shown by the other and in view of the uncertainties concerning both, it was assumed that there was no net movement of citizens in the 1950-60 decade.

An additional element of uncertainty may have been introduced in the 1950-60 intercensal balancing equation by the 1960 computer processing, and its possible effect should be considered in any coverage evaluation. As is mentioned in the section below on "Extent and implications of editing," 776,655 persons were included in the 1960 count through computer imputation of population to housing units for which there was some evidence of occupancy but for which no persons were listed. Part of this evidence came from an indication of an occupied unit on the housing schedule but with no corresponding FOSDIC-readable persons on the population schedule, and part came from a reenumeration of a sample of field "closeouts" in which it was found that many such units were occupied. This procedure illustrates the fact that, in any census, there is always a marginal group from the standpoint of whether they were literally "counted." Even if it is granted that the 1960 procedure for computer imputation of population was a desirable final step of the enumerative process, there is, nevertheless, some evidence that the computer may have "overimputed" persons. The amount of this overcount has not been closely determined, but it could reasonably be from 100,000 to 400,000.

In summary, if we ignore the possibility of overimputation of persons in the special computer procedure, and if we accept the estimate of net civilian migration given above, the 1960 Census appears to have been more complete than the 1950 Census.

The number of persons enumerated in 1960 was somewhat larger than expected on the basis of the 1950 Census count and estimates of births, deaths, and immigration for the 1950-60 period. On the basis of this fact and the "minimum reasonable" estimate of net underenumeration in 1950 (2.4 percent),² the estimated amount of underenumeration in 1960 would be 3,438,000. The estimated rate of underenumeration in 1960 would be somewhat less than in 1950, or 1.9 percent. If we allow 250,000 for computer overcount, then the amount of underenumeration would be about the same in 1960 as in 1950 and the 1960 rate would be slightly closer to the 1950 estimated rate.

Absolute estimates of coverage and of gross coverage errors.—The previous discussion is concerned primarily with coverage of the 1960 Census as compared with the 1950 Census and is based on the 1950 evaluation study results and on estimates of population changes between 1950 and 1960. Although the evaluative studies of the 1960 Census based on field resurveys and record checks have not as yet been brought to final conclusion, some preliminary findings can be given here.

One major method of studying coverage in both 1950 and 1960 was through a reenumerative procedure, that is, through intensive reinterviews of a sample of the census respondents. Within properly enumerated living quarters, there can be omissions or erroneous inclusions of occupants. Table A shows estimates of coverage errors for 1960 and 1950, as estimated from reenumerative surveys.

² U.S. Bureau of the Census, *The Post-Enumeration Survey: 1950*, Technical Paper No. 4, Washington, D.C., 1960, table B, p. 6.

TABLE A.—ESTIMATES OF POPULATION COVERAGE ERRORS BASED ON REENUMERATIVE SURVEYS

(Percent of census total)		
Enumeration errors	1960	1950
Omission of persons.....	3.0	2.3
In missed living quarters.....	1.6	1.6
In enumerated living quarters.....	1.4	0.6
Erroneous inclusions of persons.....	1.3	0.9
Net undercoverage of persons.....	1.7	1.4

Comparison of independent estimates of coverage errors between censuses are difficult because the evaluation studies themselves differ in effectiveness. The estimates for 1960 and 1950 are not entirely comparable. In 1960, the check for missed persons included "housing units" and all "group quarters." In 1950, the check included "dwelling units" (comparable to "housing units" in 1960) and "quasi-households" where less than 35 persons had been enumerated. In addition, there was a difference in the timing and effectiveness of the reenumeration procedures. On the basis of other studies and evidence, it was concluded that the net undercoverage in the 1950 Census was substantially underestimated by the 1950 Post-Enumeration Survey (PES), especially for persons not readily identified with a regular place of

residence. As a consequence of weaknesses detected in the 1950 reenumerative procedures, steps were taken to strengthen the corresponding procedures in 1960. Therefore, for 1960, there are higher, and perhaps more reasonable, estimates of numbers of missed persons than in 1950. Estimates of gross numbers of missed persons, based on data from reverse record checks, will be published in the Evaluation and Research Program series of reports.

The results of analytical methods previously described may be combined with the evidence from the reenumerative studies to give some overall estimates of net undercount in 1960. Through resurvey methods, a net undercount of population of about 1.7 percent has been estimated, and through analysis of the available information, between 1.0 and 2.9 percent, depending on the net undercount assumed for 1950 and the assumption regarding overimputation of persons in 1960. Considering the evidence now available, a reasonable estimate of the rate of net undercount in 1960 seems to be about 2.0 percent of the total as compared to the "minimum reasonable" estimate in the 1950 Census of 2.4 percent. In absolute terms, this amounts to a net undercount in 1960 of three and a half million people. The results reported here are preliminary and incomplete. Further evaluation of the 1960 Census will be possible as final results of the entire series of Evaluation and Research Program studies become available.

POPULATION TRENDS AND DISTRIBUTION

THE UNITED STATES

Population of the United States, the Commonwealth of Puerto Rico, and outlying areas of sovereignty or jurisdiction.—The population of the United States and its outlying areas was about 183,285,000 on April 1, 1960 (table B). Puerto Rico accounted for somewhat less than two-thirds of the population outside the United States and something less than one-tenth of the population was found in other outlying areas. The population abroad, principally members of the Armed Forces and their families, numbered about 1,374,000.

TABLE B.—POPULATION OF THE UNITED STATES AND OUTLYING AREAS: 1960 AND 1950

[For detailed information, see table 1]

Area	1960	1950	Increase, 1950 to 1960	
			Number	Percent
Total.....	183,285,009	154,233,234	29,051,775	18.8
United States.....	179,323,175	151,325,798	27,997,377	18.5
Conterminous United States.....	178,464,236	150,697,361	27,766,875	18.4
Alaska.....	226,167	128,643	97,524	75.8
Hawaii.....	632,772	400,794	231,978	57.9
Commonwealth of Puerto Rico.....	2,349,544	2,210,703	138,841	6.3
Outlying areas of sovereignty or jurisdiction.....	237,869	215,188	22,681	10.5
United States population abroad.....	1,374,421	481,545	892,876	185.4

Population of the United States.—The population of the United States on April 1, 1960, was 179,323,175; this figure represents an increase of nearly 28 million, or 18.5 percent, over the corresponding figure for April 1, 1950 (table 2). In absolute numbers this increase is greater than the increase during any previous intercensal period. In relative terms, the increase between 1950 and 1960 was the largest increase since the decade 1900 to 1910. It falls considerably short, however, of any of the decennial rates of increase which occurred during the nineteenth century.

The population of conterminous United States, that is, the United States excluding the newly admitted States of Alaska and Hawaii, was 178,464,236 on April 1, 1960. This figure repre-

sents an increase of about 27.8 million, or 18.4 percent, over the corresponding 1950 figure.

An examination of the decennial rates of increase since 1790 indicates that during each of the seven decades up to 1860 the population increased by approximately one-third. On the basis of an estimated correction made for the apparent underenumeration in 1870, the percentage increases for the decades 1860 to 1870 and 1870 to 1880 become, respectively, 26.6 and 26.0 rather than 22.6 and 30.1. (See footnote 3 of table 2.) On the basis of these revised figures, the decennial rates of increase for the period 1860 to 1890 were all in the neighborhood of 25 percent.¹ The decennial rates of increase in the period 1890 to 1910 were about 20 percent, and those for the period 1910 to 1930, about 15 percent. The percentage increase for the period 1930 to 1940, the decade of the depression, represents an all-time low.

Center of population.—The "center of population" is defined by the Bureau of the Census as that point which may be considered as the center of population gravity of the United States; in other words, the point upon which the United States would balance, if it were a rigid plane, without weight and the population were distributed thereon with each individual being assumed to have equal weight and to exert an influence on a central point proportional to his distance from that point. Table C and figure 10 give the approximate location of the center of population for conterminous United States at each census from 1790 to 1960.

The center of population of the United States moved westward within the State of Illinois between 1950 and 1960. The 1960 center of population is located about 50 miles east of East St. Louis and about 6½ miles northwest of Centralia, in Meridian township, Clinton County, Ill. The 1950 center is located at latitude 38°35'58" North and longitude 89°12'35" West.

The new center of the United States is 16½ miles south and 57 miles west of the 1950 center of the then 48 States, which was located near Olney, Richland County, Ill. Approximately 2

¹For a more extensive analysis of population growth in the United States during the nineteenth century, see U.S. Bureau of the Census, *A Century of Population Growth*, U.S. Government Printing Office, Washington, D.C., 1909.

TABLE C.—CENTER OF POPULATION: 1790 TO 1960

Census year	North latitude	West longitude	Approximate location
United States: 1790.....	38 35 58	89 12 35	In Clinton County, Ill., 6½ miles northwest of Centralia.
1960.....	38 48 15	88 22 8	3 miles northeast of Louisville, Clay County, Ill.
Conterminous United States: 1790.....	38 37 57	88 52 23	4 miles east of Salem, Marion County, Ill.
1960.....	38 50 21	88 9 33	8 miles north-northwest of Olney, Richland County, Ill.
1940.....	38 55 54	87 22 35	2 miles southeast by east of Carlisle, Haddon township, Sullivan County, Ind.
1930.....	39 3 45	87 8 6	3 miles northeast of Linton, Greene County, Ind.
1920.....	39 10 21	86 43 15	8 miles south-southeast of Spencer, Owen County, Ind.
1910.....	39 10 12	86 32 20	In the city of Bloomington, Ind.
1900.....	39 9 36	85 48 54	6 miles southeast of Columbus, Ind.
1890.....	39 11 56	85 32 53	20 miles east of Columbus, Ind.
1880.....	39 4 8	84 39 40	8 miles west by south of Cincinnati, Ohio (in Kentucky).
1870.....	39 12 0	83 35 42	48 miles east by north of Cincinnati, Ohio.
1860.....	39 0 24	82 48 48	20 miles south by east of Chillicothe, Ohio.
1850.....	38 59 0	81 19 0	23 miles southeast of Parkersburg, W. Va. ¹
1840.....	38 2 0	80 18 0	16 miles south of Clarksburg, W. Va. ¹
1830.....	38 57 54	79 16 54	19 miles west-southwest of Moorefield, W. Va. ¹
1820.....	39 5 42	78 33 0	16 miles east of Moorefield, W. Va. ¹
1810.....	39 11 30	77 37 12	40 miles northwest by west of Washington, D.C. (in Virginia).
1800.....	39 16 0	76 56 30	18 miles west of Baltimore, Md.
1790.....	39 16 30	76 11 12	23 miles east of Baltimore, Md.

¹ West Virginia was set off from Virginia Dec. 31, 1862, and admitted as a State June 19, 1863.

miles of the southward movement and 18 miles of the westward movement is due to the addition of Alaska and Hawaii as States. The remainder of the change resulted from shifts in the population of the 48 States. This westward movement of the center of population between 1950 and 1960 is the greatest during the present century and exceeds all movements westward since the decade of 1880 to 1890. The longest movement westward was during the decade from 1850 to 1860 when the center advanced 80.6 miles. The shortest movement westward was during the decade from 1910 to 1920 when it advanced only 9.8 miles. The point farthest north was the 1790 location, and the point farthest south, the 1960 location; but the difference is only 47 miles. The total westward movement from 1790 to 1960 was 701 miles.

The position of the "center of area," that is, the point on which the surface of the United States would balance if it were a plane of uniform weight per unit of area, is located in Butte County, South Dakota (approximate latitude 44°58' North, longitude 103°46' West).

Area and density.—The gross area, land and water, of the United States and its outlying areas at the time of the 1960 Census was 3,628,150 square miles (table 1). Puerto Rico and the outlying areas had an area of 12,939 square miles and constituted less than 0.4 percent of the aggregate area.

The area in 1790 was 888,811 square miles, or somewhat less than one-fourth of the present area, and embraced substantially all the territory between Canada and Florida and between the Atlantic Ocean and the Mississippi River, together with part of the drainage basin of the Red River of the North. This original territory and the successive major accessions of territory from 1790 to 1920 are shown in figure 3. In 1803, the area of the country was nearly doubled by the Louisiana Purchase; and, between 1840 and 1850, three large accessions of territory resulted in further increases aggregating 1,204,741 square miles, equivalent to two-thirds of the former area.

TABLE D.—TERRITORY OF THE UNITED STATES AND ITS OUTLYING AREAS: 1790 TO 1960

[Gross area (land and water) in thousands of square miles]

Year	Total	States ¹	Other ²	Year	Total	States ¹	Other ²
1960.....	3,628	3,615	13	1870.....	3,609	1,983	1,626
1950.....	3,628	3,022	606	1860.....	3,022	1,713	1,309
1940.....	3,735	3,022	713	1850.....	2,993	1,632	1,461
1930.....	3,735	3,022	713	1840.....	1,788	935	853
1920.....	3,735	3,022	713	1830.....	1,788	821	967
1910.....	3,735	2,787	948	1820.....	1,788	754	1,034
1900.....	3,735	2,717	1,018	1810.....	1,716	514	1,202
1890.....	3,609	2,632	977	1800.....	889	526	363
1880.....	3,609	2,087	1,521	1790.....	889	517	372

¹ For the most part, the 1960 area of each State was used in computing the area included in the States at each decade. Minor adjustments in State boundaries were ignored, but major changes, such as the decreases in the area of Georgia prior to 1800 and 1810 when parts of the original area of the State were ceded to the Federal Government, are reflected in the figures.

² Includes the Commonwealth of Puerto Rico, the Territories prior to becoming States, and outlying areas of sovereignty or jurisdiction.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957*, Washington, D.C., 1960, Series J1-2, and records of the Bureau of the Census.

For the United States, the population per square mile of land area in 1960 was 50.5 (table 2). For conterminous United States, that is, the United States excluding Hawaii and Alaska, the figure for 1960 was 60.1 as compared with 50.7 for the same area in 1950. Beginning with the Census of 1790, in which the population per square mile was 4.5, the figures at each subsequent census have shown an increase in density with the exception of those for the Censuses of 1810 and 1850. In each of these years, the density was lower than it had been in the immediately preceding census because of large accessions of sparsely populated territory in the preceding decade.

Area measurement.—Land includes dry land and land temporarily or partially covered by water, such as marshland, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than one-eighth of a statute mile in width; and lakes, reservoirs, and ponds having less than 40 acres of area. The presentation of area measurements may be for total or gross area, including land and inland water.

The land area figures of incorporated places generally were supplied by city engineers. The definition of land as employed by the Bureau may not have been observed by those outside the Bureau, but the reasonableness of their measurements were reviewed before inclusion in the publications. Other area figures were supplied by government officials or other well informed sources, or were obtained by planimeter measurements of the best available maps.

Changes in areas from previous dates result from changes in boundaries and from remeasurements based on more accurate information. Transfers between land and water areas occur through construction of dams and reservoirs or the filling in of water area.

Urban and rural residence.—According to the definition adopted for use in the 1960 Census, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas (see section below); (c) towns in New England and townships in New Jersey and Pennsylvania which contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile; (d) counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons per square mile; and (e) unincorporated places of 2,500 inhabitants or more. In other words, the urban population com-

prises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas (see the section "Places"). The population not classified as urban constitutes the rural population.

This definition of urban is substantially the same as that used in 1950; the major difference between 1950 and 1960 is the designation in 1960 of urban towns in New England and of urban townships in New Jersey and Pennsylvania. The effect on population classification arising from this change was actually small because, in 1950, most of the population living in such places was classified as urban by virtue of residence in an urbanized area or in an unincorporated urban place. (See sections below.) In censuses prior to 1950, the urban population comprised all persons living in incorporated places of 2,500 inhabitants or more and areas (usually minor civil divisions) classified as urban under somewhat different special rules relating to population size and density.⁴

The most important component of the urban territory in both definitions is the group of incorporated places having 2,500 inhabitants or more. A definition of urban territory restricted to such places, however, excludes a number of equally large and densely settled places merely because they are not incorporated places. Under the definition used previous to 1950, an effort was made to avoid some of the more obvious omissions by the inclusion of selected places which were classified as urban under special rules. Even with these rules, however, many large and closely built-up places were excluded from the urban territory.

To improve its measure of the urban population, the Bureau of the Census adopted, in 1950, the concept of the urbanized area (see the section "Urbanized areas") and defined the larger unincorporated places as urban. All the population residing in urban-fringe areas and in unincorporated places of 2,500 or more is classified as urban according to the current definition. The urban towns, townships, and counties as defined for the 1960 Census are somewhat similar in concept to the minor civil divisions classified as urban under special rules in 1940 and 1930.

For the convenience of those interested in the historical trend of the urban and rural population, the 1950 and 1960 population figures are shown on the basis of both the "current" definition and the "previous" definition. Although the Bureau of the Census has employed other definitions of "urban" in prior years, the urban and rural population figures published here as according to the "previous" definition have been revised to present a substantially consistent series.

The 1950 figures on the population by urban-rural residence according to the "previous" definition have been revised since the publication of the 1950 reports. In the 1950 reports, the areas urban under the special rules of 1940 were those which had been so classified in 1940. Some of these areas no longer qualified as urban, whereas others which qualified in 1950 were not included. Prior to the 1960 Census, the list was revised

to reflect this situation. As a result, the number of areas urban under the 1940 special rules in 1950 was increased from 140 to 175.

Urban and rural population under the current and previous definition.—Under the current urban definition, 125,268,750 persons, or 69.9 percent of the population of the United States, were classified as urban in 1960. The remaining 54,054,425 persons constituted the rural population. The urban population according to the previous definition was 113,056,353, and the rural population was 66,266,822 (table 3).

The 1960 urban population according to the current definition consisted of the following: (a) The 106,308,257 inhabitants of the 4,699 incorporated places of 2,500 inhabitants or more; (b) the 5,106,083 inhabitants of the 620 unincorporated places of 2,500 inhabitants or more; (c) the 3,313,559 residents of the 125 urban towns and townships and 1 urban county; and (d) the 10,540,851 persons living in urban-fringe areas outside urban places. Had the definition of 1940 been in effect, the urban population would have been the 106,308,257 inhabitants of the 4,699 incorporated places of 2,500 inhabitants or more and the 6,748,096 persons living in the 324 areas classified as urban under the special rules of 1940 (table E).

TABLE E.—POPULATION, URBAN AND RURAL, ACCORDING TO CURRENT AND PREVIOUS URBAN DEFINITIONS: 1960

[For description of current and previous definitions, see text]

Type of area and class of place in accordance with current urban definition	Total	Type of area and class of place in accordance with previous urban definition			
		Urban			Rural
		Total	Incorporated urban places	Areas urban under special rule	
Total	179,323,175	113,056,353	106,308,257	6,748,096	66,266,822
Urban, total	125,268,750	112,548,416	106,308,257	6,240,159	12,720,334
Within urbanized areas	95,848,487	85,115,187	79,487,607	5,627,530	10,733,350
Incorporated places of 2,500 or more.....	79,487,607	79,487,607	79,487,607	—	—
Incorporated places under 2,500.....	689,746	—	—	—	689,746
Urban towns or townships.....	3,140,537	2,975,085	—	2,975,085	165,452
Unincorporated places.....	2,679,492	618,630	—	618,630	2,062,862
Other urban territory.....	9,861,105	2,035,815	—	2,035,815	7,825,290
Outside urbanized areas	29,420,263	27,433,279	26,820,650	612,629	1,986,984
Incorporated places of 2,500 or more.....	26,820,650	26,820,650	26,820,650	—	—
Unincorporated places of 2,500 or more.....	2,426,591	513,466	—	513,466	1,913,125
Urban towns or townships.....	173,022	99,163	—	99,163	73,859
Rural, total	54,054,425	507,937	—	507,937	53,546,488

Table 4 presents the population of the areas which, in 1960 and 1950, were urban under the special rules of 1940 and the classification of the 1960 population of the 1960 areas by urban and rural residence in accordance with the current urban definition. As shown in this table, 6,240,159 persons living in these areas in 1960 were classified as urban according to the current definition, and the remaining 507,937 were classified as rural. Of those classified as urban, 5,627,530 were urban by virtue of residence in unincorporated territory included in urban-fringe areas, 513,466 by virtue of residence in unincorporated places of 2,500 inhabitants or more outside urbanized areas, and 99,163 by virtue of residence in urban towns or townships outside urbanized areas (table E).

Included in the urban population in 1960 according to the current definition, but who would have been included in the rural population according to the previous definition, were

⁴The areas urban under special rules were of four types. The first type was limited to the States of New Hampshire, Massachusetts, and Rhode Island, in which States it is not the practice to incorporate as municipalities places with fewer than 10,000 inhabitants. This type was made up of towns (townships) in which there was a village or thickly settled area having 2,500 inhabitants or more, and which comprised, either by itself or when combined with other villages in the same town, more than 50 percent of the total population of the town. The second type of areas urban under special rule was made up of townships and other political subdivisions (not incorporated as municipalities nor containing any areas so incorporated) with a total population of 10,000 or more and a population density of 1,000 or more per square mile. The third type of area urban under special rule consisted of 7 places—1 in Vermont and 6 in Maine—which had been classified as urban places in 1930 but about whose status as incorporated places some question was raised in 1940. The fourth type was limited to unincorporated places of 2,500 inhabitants or more in Alaska and Hawaii, where there were no incorporated places.

10,733,350 persons living outside incorporated places of 2,500 in urban-fringe areas, 1,913,125 persons living in unincorporated places of 2,500 inhabitants or more outside urbanized areas, and 73,859 persons in urban towns or townships outside urbanized areas. On the other hand, 507,937 persons living in areas urban under special rules according to the previous definition were classified as rural according to the current definition. The net difference in the urban population which resulted from the change in definition, therefore, is 12,212,397, or 6.8 percent of the total population of the United States. In terms of the population classified in accordance with the previous urban definition, the change in definition resulted in an increase of 10.8 percent in the urban population and a decrease of 18.4 percent in the rural population (table 19).

The population of the incorporated places of 2,500 inhabitants or more constituted 84.9 percent of the urban population under the new definition and 94.0 percent of the urban population under the previous definition. The population living in other territory in the urban-fringe areas accounted for 13.1 percent of the urban population under the current definition, and outside urbanized areas the population in unincorporated places of 2,500 inhabitants or more accounted for 1.9 percent, and the population of urban towns and townships accounted for 0.1 percent.

Trends in urban and rural population, 1790 to 1960.—Between 1950 and 1960, the population classified as urban according to the current definition increased from 96,846,817 to 125,268,750, whereas the rural population declined slightly from 54,478,981 to 54,054,425. The increase in the urban population was at the rate of 29.3 percent in contrast to the decline of 0.8 percent for the rural population. As a result, the proportion of the population urban increased from 64.0 to 69.9 percent.

Historical trends in the urban and rural population can be examined only on the basis of the previous definition. On this basis, the urban population increased from 90,128,194 in 1950 to 113,056,353 in 1960, and the rural population from 61,197,604 in 1950 to 66,266,822 in 1960 (table 3). The gains of 22,928,159 in the urban, and 5,069,218 in the rural, population represented increases of 25.4 and 8.3 percent, respectively. The numerical gain in the urban population was the largest in history and marked the eighth consecutive decade in which the numerical increase in urban population exceeded that in the rural population.

In 1790, only 1 out of every 20 of the 3,929,214 inhabitants of the United States was living in urban territory. In every decade thereafter, with the exception of that from 1810 to 1820, the rate of growth of the urban population exceeded that of the rural population. By 1860, 1 out of 5 persons was included in the urban population. The process of urbanization continued in the following decades, and by 1920 the urban population had exceeded the rural population. In 1960, about 5 out of every 8 persons were living in urban territory, according to the previous definition.

Population density by size of place.—In 1960, the urban population which constituted nearly 70 percent of the total population was concentrated in slightly more than 1 percent of the land area of the country (table F). The population of urbanized areas, something more than one-half of the total, occupied less than 1 percent of the total land area. Among urban places, the number of inhabitants per square mile decreased as size of place decreased. For places of 1,000,000 inhabitants or more, the average density was 13,865 persons per square mile; for places between 100,000 and 1,000,000, average densities ranged between 4,000 and 6,000 per square mile, and the average density for places of 2,500 to 5,000 was 1,446. In urban-fringe areas outside urban places, the average density was 1,781 per square mile, and in rural territory the density was 15.

TABLE F.—POPULATION AND DENSITY IN GROUPS OF PLACES CLASSIFIED ACCORDING TO SIZE: 1960

Area	Population	Land area in square miles	Population per square mile of land area
United States	179,323,175	3,548,974	51
Places of 1,000,000 or more.....	17,484,059	1,261	13,865
Places of 500,000 to 1,000,000.....	11,110,991	1,888	5,885
Places of 250,000 to 500,000.....	10,765,881	2,401	4,484
Places of 100,000 to 250,000.....	11,652,426	2,728	4,271
Places of 50,000 to 100,000.....	13,835,902	3,539	3,910
Places of 25,000 to 50,000.....	14,950,612	5,319	2,811
Places of 10,000 to 25,000.....	17,568,286	6,939	2,532
Places of 5,000 to 10,000.....	9,779,714	5,005	1,954
Places of 2,500 to 5,000.....	7,580,028	5,242	1,446
Other urban territory.....	10,540,851	5,917	1,781
Rural territory.....	54,054,425	3,508,736	15
Within urbanized areas	95,848,487	25,544	3,752
Places of 1,000,000 or more.....	17,484,059	1,261	13,865
Places of 500,000 to 1,000,000.....	11,110,991	1,888	5,885
Places of 250,000 to 500,000.....	10,765,881	2,401	4,484
Places of 100,000 to 250,000.....	11,652,426	2,728	4,271
Places of 50,000 to 100,000.....	13,835,902	3,539	3,910
Places of 25,000 to 50,000.....	8,015,421	2,594	3,090
Places of 10,000 to 25,000.....	8,230,638	2,873	2,869
Places of 5,000 to 10,000.....	2,862,099	1,488	1,923
Places of 2,500 to 5,000.....	1,250,219	866	1,461
Other urban territory.....	10,540,851	5,917	1,781
Outside urbanized areas	83,474,688	3,523,430	24
Places of 25,000 to 50,000.....	6,935,191	2,725	2,546
Places of 10,000 to 25,000.....	9,237,648	4,066	2,272
Places of 5,000 to 10,000.....	6,917,615	3,517	1,967
Places of 2,500 to 5,000.....	6,329,809	4,386	1,443
Rural territory.....	54,054,425	3,508,736	15

APPORTIONMENT

Apportionment population.—The primary reason for the establishment of the decennial census of population, as set forth in the Constitution, was to provide a basis for the apportionment of members of the House of Representatives among the several States. Such an apportionment has been made on the basis of every census from 1790 to 1960 except that of 1920. Prior to 1870, the population basis for apportionment was the total free population of the States, omitting Indians not taxed, plus three-fifths of the number of slaves. After the apportionment of 1860 the fractional count of the number of slaves, of course, disappeared from the procedure; and in 1940 it was determined that there were no longer any Indians who should be classed as "not taxed" under the terms of the apportionment laws. The 1940 and 1950 apportionments, therefore, were made on the basis of the entire population of the 48 States, and that of 1960 on the basis of the entire population of the 50 States. All apportionments are made under the constitutional provision that each State should have at least one Representative, no matter how small its population.

The population base for apportionment and other significant items are shown in table G. The results of each apportionment, starting with the initial apportionment in 1789 and including those based on each census from 1790 to 1960, are shown by regions, divisions, and States in table 13.

The first attempt to make provision for automatic reapportionment was included in the act for the taking of the Seventh and subsequent censuses (approved May 23, 1850). By specifying the number of Representatives to be assigned and the method to be used, it was hoped to eliminate the need for a new act of Congress every decade and assure an equitable distribution of Representatives. Following the Censuses of 1860 and 1870, however, Congress increased the number of Representatives. When the Census Act of 1850 was superseded in 1879, the automatic feature was discontinued. After each succeeding census up to and including that of 1910, apportionment was by a special act of Congress.

TABLE G.—POPULATION BASE FOR APPORTIONMENT AND THE NUMBER OF REPRESENTATIVES APPORTIONED: 1790 TO 1960

Census year	Population base ¹	Number of Representatives ²	Ratio of apportionment population to Representatives	Date of apportionment act
1960-----	178,559,219	435	410,481	Nov. 15, 1941.
1950-----	149,895,183	435	344,587	Nov. 15, 1941.
1940-----	131,006,184	435	301,164	Nov. 15, 1941.
1930-----	122,093,455	435	280,675	June 18, 1929.
1920-----	(³)	435	(³)	(³).
1910-----	91,603,772	435	210,583	Aug. 8, 1911.
1900-----	74,562,608	386	193,167	Jan. 16, 1901.
1890-----	61,908,906	356	173,901	Feb. 7, 1891.
1880-----	49,371,340	325	151,912	Feb. 25, 1882.
1870-----	38,116,641	292	130,533	Feb. 2, 1872. ⁴
1860-----	29,550,038	241	122,614	May 23, 1850. ⁵
1850-----	21,766,691	234	93,020	May 23, 1850. ⁵
1840-----	15,908,376	223	71,338	June 25, 1842.
1830-----	11,930,987	240	49,712	May 22, 1832.
1820-----	8,972,396	213	42,124	Mar. 7, 1822.
1810-----	6,584,231	181	36,377	Dec. 21, 1811.
1800-----	4,879,820	141	34,609	Jan. 14, 1802.
1790-----	3,615,823	105	34,436	Apr. 14, 1792.
-----	-----	65	30,000	Constitution, 1789.

¹ Excludes the population of the District of Columbia, the population of the Territories, the number of Indians not taxed, and (prior to 1870) two-fifths of the slave population.

² This number is the actual number apportioned at the beginning of the decade.

³ No apportionment was made after the Census of 1920.

⁴ Amended by act of May 30, 1872.

⁵ Amended by act of Mar. 4, 1862.

⁶ Amended by act of July 30, 1862.

⁷ The minimum ratio of population to Representatives stated in the Constitution (art. 1, sec. 2).

No reapportionment was made after the Census of 1920, the apportionment of 1910 remaining in effect. In 1929, when the act for the taking of the Fifteenth and subsequent censuses was under consideration, it seemed desirable to incorporate some provision which might prevent the repetition of the 1920 experience. A section was, therefore, included in the act which provided, for the 1930 and subsequent censuses, that unless Congress within a specified time enacted legislation providing for apportionment on a different basis, the apportionment should be made automatically by the method last used. In accordance with this act, a report was submitted by the President to Congress on December 4, 1930, showing the apportionment computations both by the method of major fractions (which was the one used in 1910) and by the method of equal proportions. In 1931, in the absence of additional legislation, the automatically effective apportionment followed the method of major fractions.

The Censuses of 1940, 1950, and 1960 were taken under the same law as the Census of 1930, but in 1941 this law was amended to the effect that apportionments based on the 1940 and subsequent censuses should be made by the method of equal proportions. In the application of this method, the Representatives are so assigned that the average population per Representative has the least possible relative variation between one State and any other.

Changes in number of Representatives, 1950 to 1960.—On their admission as States, both Alaska and Hawaii were assigned a single Representative, bringing the total membership in the House of Representatives to 437. This increase was temporary, and the number of Representatives reverted to 435 in the apportionment based on the results of the 1960 Census. Nine States gained Representatives and sixteen lost Representatives in this apportionment. The largest gain was made by California, which gained eight Representatives. Florida gained four; and Arizona, Hawaii, Maryland, Michigan, New Jersey, Ohio, and Texas each gained one. The largest loss, three seats, was incurred by Pennsylvania. Arkansas, Massachusetts, and New York each lost two seats. The twelve States which lost one seat are: Alabama, Illinois, Iowa, Kansas, Kentucky, Maine, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, and West Virginia.

REGIONS, DIVISIONS, AND STATES

Trends in population, 1950 to 1960.—For the purposes of providing summary figures at levels intermediate between those for the United States and those for an individual State, regions and geographic divisions have been used in recent censuses. The latter type of area represents a grouping of contiguous States, and regions in turn are composed of groups of divisions. The component States of each division are shown in figure 2.

As in earlier periods, the West led the four regions of the United States in rate of population growth during the last 10 years. Between 1950 and 1960, the West had a 38.9 percent increase in population, whereas no other region increased by more than 16.5 percent (table 10). Throughout the last 100 years, census returns consistently have pointed to the West as the region outstripping all others in rate of population gain. Now, as in the decade 1940 to 1950, the numerical intercensal increase in the population of the West, 7,863,142, has also exceeded the numerical increase in any other region. The larger part of the increase in the West, 6,083,080, took place in the Pacific Division. In the Mountain Division, the increase was 1,780,062, or somewhat more than one-fifth of the gain for the region. The Pacific and Mountain Divisions surpassed all other divisions with respect to rate of population increase in the last 10 years, the former having an increase of 40.2 percent, and the latter an increase of 35.1 percent.

Among the remaining regions, the West was followed by the South and North Central Regions with rates of growth of 16.5 and 16.1 percent, respectively. In the South there was considerable variability in the rate of growth among the component States. This region contained, on the one hand, three States and the District of Columbia which lost population during the decade; and, on the other, Florida with the highest percentage increase of any State during the decade, as well as such States as Maryland and Delaware which had rates of growth well above the national average. In the North Central Region, the largest growth occurred in the East North Central Division, which gained 5,825,656, or 19.2 percent. The West North Central Division increased by only 1,332,721, or 9.5 percent.

The Northeast Region had the smallest rate of growth, 13.2 percent. The rates for the New England and Middle Atlantic Divisions were not essentially different, 12.8 and 13.3, respectively. The percentage increase among the States of this region varied from 3.2 in Vermont to 26.3 in Connecticut.

The population counts from the 1960 Census show that, of the present 50 States, New York was still the most populous, and Alaska was the least populous, just as has been the case since 1910. In between these extremes, however, there has been a considerable rearrangement of the rank of the States with respect to total population (table 15).

Sixteen States now rank higher than in 1950, whereas 18 other States and the District of Columbia have dropped in rank during the last 10 years. Florida had the most conspicuous change in rank, progressing from twentieth place in 1950 to tenth place in 1960. Maryland, Connecticut, Kansas, Arizona, and New Mexico each moved three positions upward in rank. On the other hand, Georgia, Kentucky, Mississippi, and North Dakota dropped three positions during the decade.

The highest rates of population increase between 1950 and 1960 occurred in Florida (78.7 percent), Nevada (78.2 percent), Alaska (75.8 percent), and Arizona (73.7 percent). Rates of increase ranging from 32 to 49 percent occurred in California, Delaware, New Mexico, Colorado, and Maryland. Utah, Hawaii, Connecticut, New Jersey, Texas, Michigan, Ohio, and Louisiana had rates of increase ranging between 20 and 30 percent. Generally,

rates of increase were high in the southwestern States running from California to Louisiana; in Florida, in the smaller east coast States adjacent to Washington, Baltimore, Philadelphia, and New York—Maryland, Delaware, New Jersey, and Connecticut; and in the North Central States of Ohio and Michigan (table 16).

Three States—West Virginia, Arkansas, and Mississippi—and the District of Columbia lost population during the decade. The loss in Mississippi, however, was negligible.

Area and density.—Among the regions, the West contained approximately 49 percent of the total land area of the country and 16 percent of the total population in 1960, whereas the Northeast with about 5 percent of the land area contained approximately 25 percent of the population. The South accounted for about 25 percent of the land area of the country and about 31 percent of the population. The corresponding figures for the North Central States were 21 and 29 percent, respectively. In 1960, there were 273.1 persons per square mile in the Northeast; 68.4 in the North Central States; 62.7 in the South; and 16.0 in the West (table 12).

The Middle Atlantic Division led the divisions with a density of 340.1 persons per square mile of land area, followed by New England with a density of 166.5 and the East North Central Division with a density of 148.0. The density figures for the remaining divisions were all less than 100; and the figure of 8.0 for the Mountain Division was the lowest of all.

The District of Columbia, which is also the city of Washington, had a density of 12,523.9 persons per square mile in 1960. Among the States, there were four—Rhode Island, New Jersey, Massachusetts, and Connecticut—with population densities greater than 500 per square mile. In New York, Maryland, and Pennsylvania, densities ranged from 251.5 to 350.1; densities from 100.4 to 236.9 occurred in the following States: Ohio, Delaware, Illinois, Michigan, Indiana, and California. The population per square mile was less than 10.0 in Alaska, North and South Dakota, and in five of the Mountain States—Montana, Idaho, Wyoming, New Mexico, and Nevada.

Shifts in the ranking of States with respect to density in the period between 1910 and 1960 have not, in general, been very marked. The District of Columbia, Rhode Island, New Jersey, Massachusetts, and Connecticut have occupied one or another of the first five places at each of the six decennial censuses in the 50-year period under consideration. Similarly, during the same period, New Mexico, Montana, Wyoming, Nevada, and Alaska were included among the six least densely settled States at each census, and since 1930 they have occupied the last five places. There were, however, some exceptional shifts. Between 1910 and 1960, California rose from thirty-seventh to fourteenth place, and Florida from thirty-ninth to eighteenth place. On the other hand, Missouri dropped from nineteenth to twenty-eighth place. Since there have been only very minor changes in land area over the 50-year period, these shifts in density rank reflect essentially the corresponding shifts in rank by population size. The largest of the outlying areas of the United States, Puerto Rico, although predominantly rural, was as densely settled as Massachusetts.

Urban and rural population under current definition.—The Northeast, with an urban population amounting to about 80 percent of the total population of the region, led all other regions in the percentage of the population classified as urban under the current definition (table 20). A slightly smaller percentage of the total population in the West (77.7 percent) was urban. The percentages of the total population classified as urban in the North Central Region and in the South were 68.7 and 58.5, respectively. In the Middle Atlantic, New England, and Pacific Divisions, the urban population comprised 75 percent or more

of the total population, whereas in the East South Central Division slightly less than one-half (48.4 percent) of the population was urban. In the remaining divisions, the percentage urban ranged from 57.2 in the South Atlantic Division to 73.0 in the East North Central Division.

There were four States—New Jersey, Rhode Island, California, and New York—among which the percentage of the population classified as urban was greater than 85 percent. This group of States was followed by five States—Massachusetts, Illinois, Connecticut, Hawaii, and Texas—in which the percentage varied from 75.0 to 83.6. At the lower end of the distribution, the percentage urban for North Dakota was 35.2 and for Mississippi, 37.7. For an additional five States—Alaska, West Virginia, Vermont, South Dakota, and North Carolina—this percentage varied from 37.9 to 39.5. The range in the remaining 34 States was from 41.2 percent for South Carolina to 74.9 percent in Utah. The District of Columbia is completely urban.

Changes in the urban and rural population, 1950 to 1960.—Changes in the urban and rural population under the current definition differed considerably in the various regions, except in the Northeast. In the West, the urban and rural percentages of increase were 55.3 and 1.7, respectively, and in the North Central Region the corresponding percentages were 24.5 and 1.1. In the South, the urban rate of increase was 40.1 percent, whereas the rural population declined by 5.9 percent. In the Northeast, however, the urban rate of increase of 14.2 percent was only about one and one-half times as large as the corresponding rural rate of increase, 9.0 percent.

The patterns of change in the urban and rural population among the geographic divisions fall into several distinct types. However, in all of the divisions, the rate of growth of the urban population during the decade exceeded the rate of growth of the rural population. The West North Central, East South Central, West South Central, and Mountain Divisions were characterized by substantial rates of growth in urban areas and by actual losses in rural areas. In the East North Central, South Atlantic, and Pacific Divisions, both the urban and rural populations increased; but the urban rates of increase were several times as great as the rural rates. In both component divisions of the Northeast, the New England and Middle Atlantic Divisions, the urban rates of increase were below the rate of growth of the total population of the country as a whole, and in comparison with other divisions only moderately in excess of the rural rates of increase.

The rates of urban and rural increase among the States (exclusive of the District of Columbia) show a similar type of variability. There were 28 States (including all of the States of the West North Central, East South Central, and West South Central Divisions) in which the urban population increased but decreases occurred in the rural population. Among this group of States were Arkansas, Mississippi, and West Virginia, the three States in which the total population decreased during the decade; in these States the rates of urban increase were, nonetheless, 21.4, 35.2, and 2.4 percent, respectively. There were 19 States in which both the urban and the rural population increased and in which the urban rate of growth exceeded the rural rate of growth. In the remaining 3 States—Maine, Massachusetts, and New York—the rural rate of increase exceeded the urban rate. In summary, the urban population increased in every State during the decade ending in 1960, whereas the rural population declined in a majority of the States.

Effects of change in urban definition.—The net shift of persons from the rural to the urban population as the result of the change in definition amounted to 6.8 percent of the total population of the United States (table 19). The corresponding percentages

for the regions were as follows: the Northeast, 7.4; the North Central Region, 4.8; the South, 5.8; and the West, 11.5.

Generally, the net effect of the change in definition was to increase the percent urban among the States. In three New England States—Massachusetts, New Hampshire, and Rhode Island—however, the net effect of the change was to decrease the percentage of the population classified as urban. In Wyoming, the change had no effect on the distribution of the population by urban and rural residence. Among all the remaining States, however, the change in definition resulted in net shifts from the rural to the urban category. These shifts ranged from 0.2 percent of the total population of North Dakota to 33.0 percent of that of Delaware.

The net shift effected by the change in definition is, of course, an index of the degree to which new areas of population concentration are legally recognized by annexation or incorporation. In States where such recognition is widespread, the net addition to the percent urban is relatively small, whereas in States where such recognition was at a minimum, the net addition to the percent urban was large. In the New England States, the situation is complicated by the application of the special rules of the previous definition. Here, apparently, in the three States in which there was a net loss in urban population as the result of the change in definition, the gain attributable to the special rules of the previous definition was greater than the gain from the urban-fringe areas, unincorporated places, and urban towns of the current definition.

Rank of States by percent urban under current and previous urban-rural definitions.—Although the change in the definition of urban-rural residence has produced some change in rank according to percent urban, there are certain States which have ranked consistently high, and other States consistently low, under both definitions in 1960 and under the previous definition in 1960 and 1910 (table H). The District of Columbia, viewed for this purpose as a State with its entire population urban, ranked first in each instance. Likewise, New Jersey, Rhode Island, California, New York, Massachusetts, and Illinois were among the first 10 places, and North Dakota, Mississippi, Alaska, South Dakota, and North and South Carolina fell among the last 10 places, in each of the three distributions.

The change in definition did, however, in a number of instances make substantial changes in rank in 1960. Delaware, for example, ranked twenty-third under the current definition, but fifty-first under the previous definition, and for Maryland the corresponding ranks were seventeenth and thirtieth. In both of these States there had been a decline in the population of the principal city which constituted a large part of the urban population of the State, but a large growth of suburban population outside incorporated places. The current definition recognized this latter growth, but the previous definition did not. Both of the States showed appreciable losses between 1910 and 1960 in rank under the previous definition. The current definition, therefore, serves to correct the impression that urban population is decreasing in these States. Although the changes in rank are not large, the same pattern occurs in States such as New York, California, and Connecticut, for which there was a decrease in rank under the previous definition between 1910 and 1960 but a higher rank in the latter year under the current definition.

State origins and boundaries.—Since 1790, not only have there been changes in the boundaries of the Thirteen Original States, but the whole process of converting newly acquired areas, first into Territories and then into States, involved a considerable number of boundary changes before the State boundaries, as they now exist, were established. The history of major changes as they relate to the 50 States and the District of Columbia as now constituted is outlined in the next column.

TABLE H.—RANK OF STATES ACCORDING TO PERCENT OF POPULATION CLASSIFIED AS URBAN: 1960 AND 1910

Rank	1960				1910	
	Current urban definition		Previous urban definition		State	Percent urban
	State	Percent urban	State	Percent urban		
1	Dist. of Col.	100.0	Dist. of Col.	100.0	Dist. of Col.	100.0
2	New Jersey	88.6	Rhode Island	89.9	Rhode Island	91.0
3	Rhode Island	88.4	Massachusetts	86.8	Massachusetts	89.0
4	California	86.4	New Jersey	82.6	New York	78.9
5	New York	85.4	Illinois	75.9	New Jersey	76.4
6	Massachusetts	83.6	New York	72.8	Connecticut	65.6
7	Illinois	80.7	Texas	72.7	California	61.8
8	Connecticut	78.3	California	71.7	Illinois	61.7
9	Hawaii	76.5	Arizona	69.9	Pennsylvania	60.4
10	Texas	75.0	Hawaii	69.3	Ohio	56.9
11	Utah	74.9	Connecticut	69.0	Washington	53.0
12	Arizona	74.6	Ohio	67.4	New Hampshire	51.8
13	Florida	73.9	Utah	66.5	Maryland	50.8
14	Colorado	73.7	Nevada	66.3	Colorado	50.3
15	Ohio	73.4	Pennsylvania	66.6	Delaware	48.0
16	Michigan	73.4	Michigan	65.0	Michigan	47.2
17	Maryland	72.7	Florida	62.2	Utah	46.3
18	Pennsylvania	71.6	Colorado	62.1	Oregon	45.6
19	Nevada	70.4	Wisconsin	62.1	Wisconsin	43.0
20	Washington	68.1	New Mexico	61.8	Indiana	42.4
21	Missouri	66.6	Missouri	61.3	Missouri	42.3
22	New Mexico	65.9	Oklahoma	61.0	Minnesota	41.0
23	Delaware	65.6	Minnesota	61.0	Montana	35.5
24	Wisconsin	63.8	New Hampshire	59.8	Maine	35.3
25	Louisiana	63.3	Washington	58.4	Arizona	31.0
26	Oklahoma	62.9	Indiana	56.8	Hawaii	30.7
27	Indiana	62.4	Wyoming	56.8	Iowa	30.6
28	Oregon	62.2	Kansas	56.4	Louisiana	30.0
29	Minnesota	62.2	Louisiana	56.2	Wyoming	29.6
30	Kansas	61.0	Maryland	56.2	Kansas	29.1
31	New Hampshire	58.3	Oregon	53.4	Florida	29.1
32	Wyoming	56.8	Iowa	52.2	Vermont	27.8
33	Virginia	55.6	Nebraska	52.0	Nebraska	26.1
34	Georgia	55.3	Alabama	51.7	Kentucky	24.3
35	Alabama	54.8	Georgia	49.8	Texas	24.1
36	Nebraska	54.3	Virginia	48.7	Virginia	23.1
37	Iowa	53.0	Montana	40.3	Idaho	21.5
38	Tennessee	52.3	Tennessee	45.7	Georgia	20.6
39	Maine	51.3	Arkansas	41.6	Tennessee	20.2
40	Montana	50.2	Idaho	41.4	Oklahoma	19.2
41	Idaho	47.5	Maine	39.9	West Virginia	18.7
42	Kentucky	44.5	South Dakota	39.0	Alabama	17.3
43	Arkansas	42.8	Alaska	37.9	Nevada	16.3
44	South Carolina	41.2	Kentucky	37.7	South Carolina	14.8
45	North Carolina	39.5	Vermont	37.0	North Carolina	14.4
46	South Dakota	39.3	Mississippi	36.2	New Mexico	14.2
47	Vermont	38.6	North Carolina	36.2	South Dakota	13.1
48	West Virginia	38.2	West Virginia	35.8	Arkansas	12.9
49	Alaska	37.0	North Dakota	35.1	Mississippi	11.5
50	Mississippi	37.7	South Carolina	34.3	North Dakota	11.0
51	North Dakota	35.2	Delaware	32.6	Alaska	9.5

Alabama.—Alabama was organized as a Territory in 1817 from the eastern part of Mississippi Territory and was admitted to the Union in 1819 as the twenty-second State with boundaries as at present.

Alaska.—Alaska was acquired by purchase from Russia in 1867 and was organized as a Territory in 1912. In 1959, Alaska was admitted to the Union as the forty-ninth State.

Arizona.—Arizona was organized as a Territory in 1863 from the western part of the Territory of New Mexico. Part of the Territory was annexed in 1867 by Nevada, leaving the Territory with boundaries the same as those of the present State. Arizona was admitted to the Union in 1912 as the forty-eighth State.

Arkansas.—Arkansas was organized as a Territory in 1819 with boundaries which also included most of the present area of Oklahoma. The area of the Territory was reduced in 1824 and 1828 to substantially the present boundaries of the State. It was admitted to the Union as the twenty-fifth State in 1836 with boundaries substantially as at present.

California.—California was organized as a State from a part of the area acquired from Mexico in 1848 and was admitted to the Union in 1850 as the thirty-first State with boundaries as at present.

Colorado.—Colorado was organized as a Territory in 1861 from parts of Kansas, Nebraska, New Mexico, and Utah Territories. In 1876, without change in boundaries and with boundaries as at present, it was admitted to the Union as the thirty-eighth State.

Connecticut.—Connecticut was one of the Thirteen Original States.

Delaware.—Delaware was one of the Thirteen Original States.

District of Columbia.—The District of Columbia, formed from territory ceded by Maryland and Virginia, was established as the seat of the Federal Government in accordance with acts of Congress passed in 1790 and 1791. Its boundaries, as defined in 1791, included the present area, together with about 30 square miles in Virginia. In 1846 the area south of the Potomac River was retroceded to Virginia, leaving the District of Columbia with its present limits.

Florida.—Florida was organized as a Territory in 1822, with boundaries as at present, from the area purchased from Spain in 1819 and transferred to the United States in 1821. It was admitted to the Union in 1845 as the twenty-seventh State.

Georgia.—Georgia was one of the Thirteen Original States. At the close of the Revolution, it included territory extending westward to the Mississippi River, constituting most of the area now in Alabama and Mississippi. In 1793 part of this area was organized as the Territory of Mississippi. In 1802 Georgia ceded to the United States all its claims to the region west of its present western boundary and acquired a small strip of land along its northern boundary. These changes left the State with its present boundaries.

Hawaii.—Hawaii, by voluntary action, ceded its sovereignty to the United States in 1898 and was organized as a Territory in 1900. In August 1959, Hawaii was admitted to the Union as the fiftieth State.

Idaho.—Idaho was organized as a Territory in 1863. Its area was reduced in 1864 by the organization of Montana Territory and in 1868 by the organization of Wyoming Territory. Idaho attained its present boundaries in 1873 with the transfer of six square miles to Montana following a resurvey of the Continental Divide. Idaho was admitted to the Union in 1890 as the forty-third State.

Illinois.—Illinois, organized as a Territory in 1809 from the western part of Indiana Territory, comprised at that time all of the present State of Illinois, almost all of Wisconsin, and parts of Michigan and Minnesota. In 1818 that portion of the Territory lying within the present boundaries of Illinois was admitted to the Union as the twenty-first State.

Indiana.—The Territory of Indiana was organized from the western part of the Territory Northwest of the River Ohio in 1800, at which time it comprised nearly all of the present State of Indiana, together with an area now constituting Illinois, Wisconsin, northeastern Minnesota, and western Michigan. In 1802 an area now constituting the remainder of Michigan was added, and in 1802 and 1803 minor revisions of the eastern boundary took place. The area of the Territory was greatly reduced by the organization of Michigan Territory in 1805 and of Illinois Territory in 1809. In 1816, with the addition of a small strip of land along the northern boundary and the separation of an area in the Upper Peninsula, Indiana was admitted to the Union as the nineteenth State with boundaries as at present.

Iowa.—Iowa was organized as a Territory in 1838 with boundaries that included, in addition to the present area of the State, the eastern parts of the present States of North Dakota and South Dakota and the western part of the present State of Minnesota. Iowa was admitted to the Union in 1846 as the twenty-ninth State with boundaries substantially as at present.

Kansas.—The area now comprising Kansas and part of Colorado was organized as the Territory of Kansas in 1854, and in 1861 that portion of the Territory lying within the present boundaries of Kansas was admitted to the Union as the thirty-fourth State.

Kentucky.—Kentucky, originally a part of Virginia, was admitted to the Union in 1792 as the fifteenth State with boundaries substantially as at present.

Louisiana.—The greater part of the area now constituting Louisiana was organized in 1804 as the Territory of Orleans. It included at that time the Baton Rouge District—that part of the present State lying east of the Mississippi River—but excluded the southwestern part of the present State—that part lying west of the Louisiana Purchase boundary. In 1812 all the present area of Louisiana except the Baton Rouge District was admitted to the Union as the eighteenth State, and upon the

addition of the district a few days later Louisiana assumed its present boundaries.

Maine.—Maine, originally a part of Massachusetts, was admitted to the Union in 1820 as the twenty-third State.

Maryland.—Maryland was one of the Thirteen Original States. In 1791 its area was reduced by the formation of the District of Columbia.

Massachusetts.—Massachusetts was one of the Thirteen Original States. In 1820 Maine, previously a part of Massachusetts, was admitted to the Union as a separate State, leaving Massachusetts with boundaries substantially as at present.

Michigan.—Michigan was organized as a Territory in 1805 from the northeastern part of Indiana Territory and comprised the greater part of the area of the present State, including the Lower Peninsula and the eastern end of the Upper Peninsula, and a small part of the present State of Indiana. In 1816 a narrow strip at the southern limit of Michigan Territory was annexed to Indiana Territory. In 1818, when Illinois was admitted as a State, all of Illinois Territory north of the State of Illinois was transferred to Michigan Territory. This transferred area comprised almost all of the present State of Wisconsin, part of Minnesota, and the western part of the Upper Peninsula of Michigan. At the same time a section of unorganized territory, formerly part of Indiana Territory, was annexed by the Territory of Michigan. This annexation comprised the middle portion of the Upper Peninsula and a very small part of Wisconsin not formerly included. In 1834 Michigan Territory was further enlarged by the annexation of that part of Missouri Territory now comprising all of Iowa, the remainder of Minnesota not previously included, and parts of North and South Dakota. With the organization of Wisconsin Territory and the legal cession of a small area to Ohio in 1836, Michigan Territory assumed the limits of the present State. Michigan was admitted to the Union as the twenty-sixth State in 1837.

Minnesota.—Minnesota was organized as a Territory in 1849 from unorganized area formerly within the Territories of Iowa and Wisconsin. It included an area now comprising the State of Minnesota, the eastern parts of the States of North and South Dakota, and a small part of Nebraska. In 1858 that part of the Territory lying within the present boundaries of Minnesota was admitted to the Union as the thirty-second State.

Mississippi.—Mississippi was organized as a Territory in 1798, at which time it included territory now comprising the south central parts of Mississippi and Alabama. The area of the Territory was enlarged in 1804 by the addition of land now comprising the northern parts of Mississippi and Alabama. Its area was further enlarged in 1812 by the addition of the extreme southern portions of the present States of Mississippi and Alabama. In 1817 the eastern part of the Territory was taken to form the Territory of Alabama, and Mississippi was admitted to the Union as the twentieth State with boundaries substantially as at present.

Missouri.—The Territory of Missouri, the name given in 1812 to the former Territory of Louisiana, comprised at that time all of the Louisiana Purchase except the part included in the State of Louisiana. The State of Missouri, formed from a small part of the Territory, was admitted to the Union in 1821. In 1893, when the present northwest corner of the State was added, Missouri assumed its present limits.

Montana.—Montana was organized as a Territory in 1864 from the northeastern part of Idaho Territory with boundaries substantially the same as those of the present State. It was admitted to the Union in 1889 as the forty-first State.

Nebraska.—Nebraska was organized as a Territory in 1854 from unorganized territory originally part of the Louisiana Purchase. Its boundaries included, in addition to the present area of the State, parts of the present States of North and South Dakota, Montana, Wyoming, and Colorado. The area of the Territory was greatly reduced in 1861 by the organization of Dakota and Colorado Territories. At the same time a small area was added to the western part of the Territory. The area was again reduced in 1863 by the organization of Idaho Territory. Nebraska was admitted to the Union in 1867 as the thirty-seventh State with boundaries substantially as at present. In 1870 and 1882 small tracts of land were transferred from the Dakota Territory to Nebraska, and in 1943 small tracts of land were transferred between Iowa and Nebraska.

Nevada.—Nevada, when organized as a Territory in 1861 from part of Utah Territory, comprised only the western part of the present State. In 1864 Nevada was admitted to the Union as the thirty-sixth State, its area having been enlarged in 1862 by the annexation from Utah Territory of a strip of land more than 50 miles wide. The State was enlarged in 1866 by annexa-

tion from Utah and in 1867, with an annexation from Arizona, Nevada assumed its present limits.

New Hampshire.—New Hampshire was one of the Thirteen Original States.

New Jersey.—New Jersey was one of the Thirteen Original States.

New Mexico.—The Territory of New Mexico was organized in 1850 from the area now comprising the greater parts of the States of New Mexico and Arizona, together with small portions of Colorado and Nevada. The Territory was enlarged by the addition of the Gadsden Purchase in 1854 and reduced by the organization of Colorado Territory in 1861. With the organization of Arizona Territory in 1863, the area of New Mexico was reduced to substantially the present area of the State. New Mexico was admitted to the Union in 1912 as the forty-seventh State.

New York.—New York was one of the Thirteen Original States. New York dropped its claim to Vermont after the latter was admitted to the Union as a separate State in 1791. With the annexation of a small area from Massachusetts in 1853, New York assumed its present boundaries.

North Carolina.—North Carolina was one of the Thirteen Original States.

North Dakota.—North Dakota was organized as a State from part of Dakota Territory with boundaries as at present and was admitted to the Union in 1889.

Ohio.—Ohio was organized from part of the Territory Northwest of the River Ohio in 1802 and with minor revisions of the western boundary was admitted to the Union as the seventeenth State in 1803. With the settlement of a boundary dispute with Michigan Territory in 1836, Ohio assumed its present boundaries.

Oklahoma.—The Territory of Oklahoma was organized in 1890 from the western part of Indian Territory and the Public Land Strip, originally a part of Texas. In 1893 the Territory was enlarged by the addition of the Cherokee Outlet, which fixed part of the present northern boundary. In 1907 the Territory and the remaining part of the Indian Territory were combined and admitted to the Union as the forty-sixth State with boundaries substantially as at present. Upon the settlement in 1930 of a boundary dispute with Texas, Oklahoma assumed its present limits.

Oregon.—Oregon was organized as a Territory in 1848, at which time it included the area now constituting the States of Oregon, Washington, Idaho, and parts of western Montana and Wyoming. The area of the Territory was greatly reduced in 1853 by the organization of the Territory of Washington. In 1859, with the transfer to Washington Territory of the area now comprising southern Idaho, western Wyoming, and a small tract in western Montana, Oregon assumed its present boundaries and was admitted to the Union as the thirty-third State.

Pennsylvania.—Pennsylvania was one of the Thirteen Original States. With the purchase of a small tract of land in its northwestern corner from the Federal Government in 1792, Pennsylvania assumed its present boundaries.

Rhode Island.—Rhode Island was one of the Thirteen Original States.

South Carolina.—South Carolina was one of the Thirteen Original States.

South Dakota.—South Dakota was organized as a State from part of Dakota Territory and was admitted to the Union in 1889.

Tennessee.—The Territory South of the River Ohio was organized in 1790, at which time it included the present State of Tennessee and parts of Mississippi, Alabama, and Georgia. In 1796 Tennessee was admitted to the Union as the sixteenth State with boundaries substantially as at present.

Texas.—Texas, originally a part of Mexico, won its independence by revolution in 1835 and 1836 and continued as an independent republic until 1845, when it was annexed to the United States and admitted to the Union as the twenty-eighth State. At this time it included area now comprising parts of Colorado, Kansas, New Mexico, Oklahoma, and Wyoming. In 1850, with the transfer to the United States of the territory now in these other States, Texas assumed practically its present boundaries. Upon settlement of a boundary dispute with Oklahoma in 1930, Texas assumed its present boundaries.

Utah.—The Territory of Utah was organized in 1850, at which time it comprised, in addition to the area of the present State, areas now constituting western Colorado, southwestern Wyoming, and the greater part of Nevada. The area of the Territory was reduced in 1861 by the organization of Nevada

and Colorado Territories and by a transfer to Nebraska Territory. It was reduced again in 1862 by the eastward extension of the Territory of Nevada and in 1866 by a similar extension of the State of Nevada and in 1868 by the organization of Wyoming Territory. Utah was admitted to the Union in 1896 as the forty-fifth State with boundaries as at present.

Vermont.—Vermont was admitted to the Union in 1791 as the fourteenth State and was the first to be admitted after the adoption of the Constitution by the Thirteen Original States.

Virginia.—Virginia, one of the Thirteen Original States, included in 1790 the areas now constituting the States of Kentucky and West Virginia. The area of the State was reduced in 1791 by the formation of the District of Columbia and in 1792 by the admission of Kentucky into the Union as a separate State; the area was enlarged in 1846 by the retrocession of the part of the District of Columbia south of the Potomac but was further reduced in 1863 by the admission of West Virginia into the Union as a separate State. In 1866 two additional counties (Berkeley and Jefferson) were annexed to West Virginia, leaving the boundaries of Virginia as at present.

Washington.—Washington was organized as a Territory in 1853 from part of Oregon Territory, and included an area now comprising the State of Washington, northern Idaho, and part of Montana. In 1859 upon the admission of Oregon as a State, the remaining portion of Oregon Territory, comprising the rest of Idaho and parts of Montana and Wyoming, was added to the Territory of Washington. The area of the Territory was reduced to the present limits of the State in 1863, upon the organization of Idaho Territory. Washington was admitted to the Union in 1889 as the forty-second State.

West Virginia.—West Virginia, formed from 48 counties of Virginia, was admitted to the Union in 1863 as the thirty-fifth State. In 1866, with the annexation of two additional counties (Berkeley and Jefferson) from Virginia, the boundaries were established as at present.

Wisconsin.—Wisconsin was organized as a Territory in 1836 from that part of Michigan Territory which lay west of the present limits of the State of Michigan. As originally constituted, the Territory included the present States of Wisconsin, Iowa, Minnesota, the eastern parts of North and South Dakota, and a small part of Nebraska. In 1838, that part of the Territory lying west of the Mississippi River and a line drawn due north from its source to the Canadian boundary was organized as the Territory of Iowa. In 1848, that part of the Territory lying within the present boundaries of the State was admitted to the Union as the thirtieth State.

Wyoming.—Wyoming was organized as a Territory in 1868 with boundaries as at present from parts of Dakota, Idaho, and Utah Territories. It was admitted to the Union in 1890 as the forty-fourth State.

OUTLYING AREAS

The circumstances under which the outlying areas became associated with the United States are as follows:

Commonwealth of Puerto Rico.—The island of Puerto Rico, together with Vieques, Culebra, and other small neighboring islands, was ceded by Spain to the United States under the terms of the Treaty of Paris, signed December 10, 1898, and ratified in April 1899. In July 1952, Puerto Rico acquired the status of a commonwealth.

Outlying areas of sovereignty or jurisdiction.—The outlying areas under the sovereignty or jurisdiction of the United States include Guam, the Virgin Islands of the United States, American Samoa, Midway Islands, Wake Island, Canton and Enderbury Islands, Johnston and Sand Islands, Swan Islands, and miscellaneous other small islands, the Canal Zone, the Corn Islands, and the Trust Territory of the Pacific Islands. The paragraphs below describe the circumstances under which the United States acquired sovereignty or jurisdiction over the principal areas.

Guam.—The island of Guam was ceded by Spain to the United States under the terms of the Treaty of Paris, signed December 10, 1898, and ratified in April 1899. From 1898 to 1950, except during the brief period of Japanese occupation during World War II, the island was administered by the Department of the Navy. On August 1, 1950, administrative responsibility for Guam was transferred from the Secretary of the Navy to the Secretary of the Interior.

Virgin Islands of the United States.—The Virgin Islands of the United States, formerly known as the Danish West Indies,

were acquired by the United States by purchase from Denmark in 1917, the formal transfer of possession having taken place on March 31 of that year. St. Croix, St. John, and St. Thomas are the principal islands in the group comprising the Virgin Islands of the United States. In addition to these three, there are some 65 smaller islands, most of which are uninhabited.

American Samoa.—The islands of American Samoa were acquired by the United States in accordance with a convention among the United States, Great Britain, and Germany, signed December 2, 1899, ratified February 16, 1900, and proclaimed by the President of the United States on the latter date. Under an Executive Order of February 19, 1900, the islands were placed under the authority of the Secretary of the Navy for use as a naval station. The high chiefs of Tutuila voluntarily ceded the islands of Tutuila and Aunu'u to the United States on April 17, 1900; and the islands of the Manu'a group (Ta'u, Olosega, and Ofu) were ceded by their high chiefs on July 16, 1904. By joint resolution of Congress, approved March 4, 1925, Swains Island was annexed to American Samoa. On July 1, 1951, administrative responsibility for the islands was transferred from the Secretary of the Navy to the Secretary of Interior.

Canal Zone.—The use, occupation, and control of the Canal Zone were granted to the United States under the terms of a treaty with the Republic of Panama, signed November 18, 1903, and ratified in the following year.

Corn Islands.—In accordance with the provisions of a convention between the United States and the Republic of Nicaragua signed August 5, 1914, the Corn Islands were leased by the United States from Nicaragua for a term of 99 years, with option of renewal. Although by the terms of the convention, the Corn Islands are subject exclusively to the laws and sovereign authority of the United States during the term of the lease or any renewal thereof, in practice, the islands continue to be administered by the Nicaraguan Government with the acquiescence of the United States.

Trust Territory of the Pacific Islands.—The United States became the administering authority over the Trust Territory of the Pacific Islands (which comprises the Caroline, Marshall, and Marianas Islands except Guam) under an agreement approved by the Security Council of the United Nations on April 2, 1947, and by the United States Government on July 18, 1947. By a series of Executive Orders (July 1947, June 1951, November 1952, and July 1953), the military government in these islands was terminated, and responsibility for the civil administration of the Northern Marianas, except Rota, was assigned to the Secretary of the Navy, whereas responsibility for the remaining islands in the Territory was assigned to the Secretary of the Interior.

URBANIZED AREAS

Definition.—The major objective of the Bureau of the Census in delineating urbanized areas was to provide a better separation of urban and rural population in the vicinity of the larger cities. In addition to serving this purpose, individual urbanized areas have proved to be useful statistical areas as well. They correspond to what are called "conurbations" in some other countries. An urbanized area contains at least one city of 50,000 inhabitants or more in 1960,⁵ as well as the surrounding closely settled incorporated places and unincorporated areas that meet the criteria listed below. An urbanized area may be thought of as divided into the central city, or cities, and the remainder of the area, or the urban fringe. All persons residing in an urbanized area are included in the urban population.

It appeared desirable to delineate the urbanized areas in terms of the 1960 Census results rather than on the basis of information available prior to the census, as was done in 1950. For this purpose, a peripheral zone was recognized around each 1950 urbanized area and around cities that were presumably approaching a population of 50,000 in 1960. Within the unincorporated parts of this zone small enumeration districts (ED's) were established, usually including no more than one square mile of land area and no more than 75 housing units.⁶

⁵ A few urbanized areas contain no single city with a population of 50,000 but have "twin" central cities with a combined population of at least 50,000.

⁶ An enumeration district is a small area assigned to one enumerator to be canvassed and reported separately. The average ED contained approximately 200 housing units.

Arrangements were made to include within the urbanized area those ED's meeting specified criteria of population density as well as adjacent incorporated places. Since the urbanized area outside incorporated places was defined in terms of ED's, the boundaries of the urbanized area for the most part follow such features as roads, streets, railroads, streams, and other clearly defined lines which may be easily identified by census enumerators in the field and often do not conform to the boundaries of political units.

In addition to its central city or cities, an urbanized area contains the following types of contiguous areas, which together constitute its urban fringe:

1. Incorporated places with 2,500 inhabitants or more.
2. Incorporated places with less than 2,500 inhabitants, provided each has a closely settled area of 100 housing units or more.
3. Towns in the New England States, townships in New Jersey and Pennsylvania, and counties elsewhere which are classified as urban.
4. Enumeration districts in unincorporated territory with a population density of 1,000 inhabitants or more per square mile. (The areas of large nonresidential tracts devoted to such urban land uses as railroad yards, factories, and cemeteries were excluded in computing the population density of an ED.)
5. Other ED's provided that they served one of the following purposes:

- a. To eliminate enclaves.
- b. To close indentions in the urbanized areas of one mile or less across the open end.
- c. To link outlying ED's of qualifying density that were no more than 1½ miles from the main body of the urbanized area.

A single urbanized area was established for cities in the same standard metropolitan statistical area (SMSA) if their fringes adjoin. Urbanized areas with central cities in different SMSA's are not combined, except that a single urbanized area was established in the New York-Northeastern New Jersey Standard Consolidated Area, and in the Chicago-Northwestern Indiana Standard Consolidated Area.

Urbanized areas were first delineated for the 1950 Census. In 1950, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1940 Census or a later special census prior to 1950; in 1960, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1960 Census.

The boundaries of the urbanized areas for 1960 will not conform to those for 1950, partly because of actual changes in land use and density of settlement, and partly because of relatively minor changes in the rules used to define the boundaries. The changes in the rules were made in order to simplify the process of defining the boundaries, and as a result of these changes, the area classified as urbanized tends to be somewhat larger than it would have been under the 1950 rules. The changes include the following:

1. The use of ED's to construct the urbanized areas in 1960 resulted in a less precise definition than in 1950 when the limits were selected in the field using an individual block as the unit of area added. On the other hand, the 1960 procedures produced an urbanized area based on the census results rather than an area defined at least a year before the census, as in 1950.
2. Unincorporated territory was included in the 1960 urbanized area if it contained at least 1,000 persons per square mile, which is a somewhat different criterion from the 500 dwelling units or more per square mile of the included 1950 unincorporated areas.
3. The 1960 areas include those entire towns in New England, townships in New Jersey and Pennsylvania, and counties that are classified as urban in accordance with the criteria listed in the section on urban-rural residence. The 1950 criteria permitted the exclusion of portions of those particular minor civil divisions.

In general, however, the urbanized areas of 1950 and 1960 are based on essentially the same concept, and the figures for a given urbanized area may be used to measure the population growth of that area.

Any city in an urbanized area which is a central city of an SMSA (see the following section) is also a central city of the urbanized area. With but two exceptions, the names of the central cities appear in the titles of the areas. The central cities of the New York-Northeastern New Jersey Area are the central cities of the New York, Newark, Jersey City, and Paterson-Clifton-Passaic SMSA's. Likewise, the central cities of the Chicago-Northwestern Indiana Area are the central cities of the Chicago and Gary-Hammond-East Chicago SMSA's.

Population of urbanized areas and their components.—Slightly more than one-half of the total, and more than three-fourths of the urban, population of the United States was living in the 213 urbanized areas in 1960 (table 5). Of the 95.8 million persons living in urbanized areas, 58.0 million were in the 254 central cities and about 37.9 million were living in the urban-fringe areas. In these fringe areas there were 27.3 million persons living in the 1,580 urban places; about 700,000 living in the 596 incorporated places under 2,500 inhabitants; and 9.9 million living in other urban territory. The sum of these last two numbers—10.5 million—represents the persons in urban territory living outside urban places, and, consequently, the net addition to the urban population attributable to the urbanized area delineations.

In population, the urbanized areas ranged in size from the Tyler (Texas) Urbanized Area, which had a population of 51,739, to the New York-Northeastern New Jersey Urbanized Area, which had a population of 14,114,927 (table 23). The 16 urbanized areas with more than 1,000,000 inhabitants had a combined population of 51,785,410, or more than one-half of the population of the 213 areas. At the other extreme, the 4,592,899 persons living in the 60 urbanized areas of under 100,000 inhabitants represented less than one-twentieth of the total population in urbanized areas.

Six out of ten persons living in urbanized areas were residents of central cities. The proportion of the population of urbanized areas living in the central city or cities, however, varied greatly among the areas, ranging from a low of 27.2 for the Wilkes-Barre (Pa.) Urbanized Area to a high of 100 percent for the Meriden, Conn.; Lewiston-Auburn, Maine; Raleigh, N.C., areas; and three urbanized areas in Texas—Amarillo, Laredo, and San Angelo. There were 87 urbanized areas with 80 percent or more of their population in the central city or cities. On the other hand, 3 areas—West Palm Beach, Fla.; Boston, Mass.; and Wilkes-Barre, Pa.—had fewer than one-third of their inhabitants living in central cities (table 22).

Population density.—The population per square mile of land area for all 213 urbanized areas was 3,752 (table 22). Two areas—York, Pa., and New York-Northeastern New Jersey—had densities in excess of 7,000, and 29 areas had densities of less than 2,000. In all areas combined, the density of the central cities was more than double that of the urban fringe areas. In 13 areas, however, the density of the urban fringe exceeded that of the central city. Population densities for both central city and urban fringe were highly variable from area to area. The extremely low densities in the urban fringe areas of some cities are in large part attributable to the inclusion in the urbanized areas of land devoted to urban uses other than residential use, such as industrial areas, railroad yards, and airports.

COUNTIES

Definition.—The primary divisions of the States are, in general, termed counties; but in Louisiana these divisions are known as parishes. In 1960, Alaska was divided into 24 election districts, included here as the equivalents of counties. There are also a number of cities which are independent of any county organization and thus constitute primary divisions of their States, namely,

Baltimore in Maryland, St. Louis in Missouri, and, at the time of the census, 32 cities in Virginia. In tables showing statistics for counties, the District of Columbia, which is not divided into counties, also is treated as the equivalent of a county, as are the three parts of Yellowstone National Park in Idaho, Montana, and Wyoming. There were 3,072 counties and parishes in the United States in 1960 and 62 county equivalents, making a total of 3,134.

The number of counties declined by three between 1950 and 1960. Armstrong County, S. Dak., was annexed by Dewey County; Elizabeth City County, Va., was consolidated with Hampton city; and Warwick County, Va., was consolidated with Newport News city. The number of county equivalents in conterminous United States increased by five. Five cities in Virginia—Covington, Galax, Norton, South Boston, and Virginia Beach—became independent of county organization during the decade. Alaska was redistricted after 1950, and its judicial divisions were replaced by 24 election districts. Changes in the number of counties were fairly frequent some decades ago but have become progressively rarer. These changes, as well as changes of county boundaries, are listed in the notes to tables 6 and 7 of the PC(1)-A State chapters and in the reports of other censuses.

Population of counties.—The counties ranged in population from Hinsdale County, Colo., which had 208 inhabitants, to Los Angeles County, Calif., which had 6,038,771 inhabitants (table 24). Fifteen additional counties—San Diego, Calif.; Cook, Ill.; Middlesex, Mass.; Wayne, Mich.; Bronx, Erie, Kings, Nassau, New York, and Queens, N.Y.; Cuyahoga, Ohio; Allegheny and Philadelphia, Pa.; Harris, Texas; and Milwaukee, Wis.—had 1,000,000 inhabitants or more. These 16 counties had a combined population of 33,589,591, or nearly one-fifth of the population of the United States (table J). On the other hand, the 855 counties and county equivalents having fewer than 10,000 inhabitants had a combined population of 5,082,074, or not quite 3 percent of the population. Despite the increase of almost one-fifth in the population of the United States as a whole, the median county population was 19,762 in 1960 as against 19,873 in 1950.

TABLE J.—POPULATION IN GROUPS OF COUNTIES CLASSIFIED
ACCORDING TO SIZE: 1960 AND 1950

Size of county	1960			1950		
	Number	Percent of total counties	Population	Number	Percent of total counties	Population
Total.....	3,134	100.0	179,323,175	3,112	100.0	151,325,798
1,000,000 or more.....	16	0.5	33,589,591	11	0.4	24,837,059
500,000 to 1,000,000.....	49	1.6	32,879,300	31	1.0	20,753,791
250,000 to 500,000.....	61	1.9	20,754,647	49	1.6	16,962,715
100,000 to 250,000.....	177	5.6	27,787,823	151	4.9	23,478,633
50,000 to 100,000.....	268	8.3	20,310,160	259	8.3	18,182,985
25,000 to 50,000.....	589	18.8	20,921,794	651	20.9	22,830,614
10,000 to 25,000.....	1,094	34.9	17,988,386	1,182	38.0	19,550,368
5,000 to 10,000.....	561	17.9	4,183,933	516	16.6	3,921,320
2,500 to 5,000.....	202	6.4	767,593	177	5.7	678,910
1,000 to 2,500.....	72	2.3	129,994	66	2.1	119,738
Under 1,000.....	20	0.6	11,154	19	0.6	9,675
Cumulative summary:						
100,000 or more.....	303	9.7	115,011,161	242	7.8	86,032,198
25,000 or more.....	1,185	37.8	160,252,115	1,162	37.0	127,045,797
10,000 or more.....	2,279	72.7	174,240,501	2,334	75.0	146,596,155
Median population.....			19,762			19,873

¹ Includes 3,008 counties; 64 parishes in Louisiana; 24 election districts in Alaska; 32 independent cities in Virginia; Baltimore city, Md.; St. Louis city, Mo.; the District of Columbia; and the parts of Yellowstone National Park in Idaho, Montana, and Wyoming.

² Includes 3,011 counties; 64 parishes in Louisiana; 4 judicial divisions in Alaska; 27 independent cities in Virginia; Baltimore city, Md.; St. Louis city, Mo.; the District of Columbia; and the parts of Yellowstone National Park in Idaho, Montana, and Wyoming.

Population changes, 1950 to 1960.—Despite the record gain of 28 million in the population of the United States as a whole, nearly one-half of the counties lost population and about one-fourth lost 10 percent or more (table 25). Of the 3,110 counties and county equivalents (excluding Alaska for which comparable figures for 1950 are not available), 1,537, or 49.4 percent, lost population, and 782, or 25.1 percent, lost 10 percent or more. Of the 1,573 counties which gained population, 953, or 60.6 percent, increased by 10 percent or more and 570, or 36.2 percent, increased by 20 percent or more.

More than three out of every four counties in the Northeast, and three out of every five counties in the West, increased in population. In both the North Central States and the South, however, more than half the counties lost population. Connecticut and Delaware, which have very few counties, were the only States in which all counties increased in population. Forty-six counties, as well as three independent cities in Virginia, doubled in population between 1950 and 1960 (table K). Only seven of these counties were located outside the South or the West. Seventeen of these counties and the three independent cities were in the South Atlantic States and eleven were in the Mountain States. Twenty-six of the fastest growing counties and the three independent cities were metropolitan counties; twenty counties were in nonmetropolitan areas. Six of the seven counties in the Northeast and the North Central States that doubled in population were in metropolitan areas. The standard metropolitan statistical areas in the South Atlantic States included eight counties and three independent cities that doubled in population; in the Mountain States, five counties in metropolitan areas doubled in population.

Some of the greatest rates of increase or decrease in the population of counties or county equivalents were attributable to boundary changes. The fastest growing county or county equivalent in the United States between 1950 and 1960 was the independent city of Hampton, Va., which had a population increase of 1,396.1 percent. This spectacular gain was due in large part to consolidation with Elizabeth City County. The next largest increase was 371.1 percent, in Brevard County, Fla. At the other extreme, the largest percentage decline was experienced in Norfolk County, Va., which had a decline of 48.4 percent. This loss, however, resulted from the annexation of a considerable part of the county by the neighboring independent city of Norfolk. The next largest percentage decline—47.6 percent—was in Allegheny County, Va. This loss resulted from the detachment of Covington town, which became an independent city.

County equivalents in Puerto Rico.—Puerto Rico is divided, for purposes of local government, into 76 areas called municipios. The number of municipios in 1960 was one less than in 1950 due to the annexation of Rio Piedras to San Juan municipio during the decade.

COUNTY SUBDIVISIONS

Traditionally in the census, statistics have been presented for parts of counties called minor civil divisions. In a number of States, however, these areas leave a great deal to be desired as a basis for compiling local statistics. The Bureau of the Census has, therefore, instituted a program of defining and presenting statistics for areas within counties, designated as "census county divisions."

Minor civil divisions.—The minor civil divisions which have been used traditionally for the presentation of statistics for the component parts of counties represent political or administrative subdivisions set up by the States. In addition to the county divisions shown by the Bureau, there are thousands of school, taxation, election, and other units for which separate census figures are not published. Where more than one type of primary division exists in a county, the Bureau of the Census

TABLE K.—COUNTIES WITH POPULATION INCREASE OF 100 PERCENT OR MORE BETWEEN 1950 AND 1960

Rank	County	1950	1960	Increase, 1950 to 1960	
				Number	Percent
1	Hampton, Va. ¹	89,258	2,596,666	83,292	1,396.1
2	Brevard, Fla.	111,435	23,653	87,782	371.1
3	Pulaski, Mo.	45,567	10,392	36,175	343.1
4	Broward, Fla.	333,946	83,933	250,013	207.3
5	Grand, Utah	6,345	1,903	4,442	233.4
6	Orange, Calif.	703,925	216,224	487,701	225.6
7	Daggett, Utah	1,164	364	800	219.3
8	Adams, Colo.	120,293	40,234	80,062	199.0
9	Charlotte, Fla.	12,594	4,286	8,308	193.3
10	San Juan, N. Mex.	53,306	18,292	35,014	191.4
11	St. Bernard, La.	32,186	11,087	21,099	190.3
12	Fairfax, Va.	275,002	98,657	176,445	179.0
13	Andrews, Tex.	13,450	5,002	8,448	168.9
14	Newport News, Va. ²	113,662	42,358	71,304	163.3
15	Sarasota, Fla.	76,895	28,827	48,068	163.7
16	Clark, Nev.	127,018	48,289	78,727	163.0
17	Midland, Texas	67,717	25,785	41,932	162.6
18	Elmore, Idaho	16,719	6,687	10,032	150.0
19	Otero, N. Mex.	36,976	14,909	22,067	148.0
20	Randall, Tex.	33,913	13,774	20,139	146.2
21	Collier, Fla.	15,753	6,488	9,265	142.3
22	Anoka, Minn.	85,916	35,579	50,337	141.5
23	Suffolk, N. Y.	666,784	276,129	390,655	141.5
24	Pinebluffs, Fla.	374,686	169,249	215,416	135.3
25	Lee, Fla.	54,539	23,404	31,135	133.0
26	Curry, Ore.	13,983	6,048	7,935	131.2
27	Orange, Fla.	263,640	114,950	148,690	128.3
28	Johnson, Kans.	143,792	62,783	81,009	129.0
29	Jefferson, Colo.	127,520	55,637	71,883	129.0
30	Okaloosa, Fla.	61,175	27,533	33,642	122.2
31	Prince William, Va.	50,164	22,612	27,552	121.8
32	Santa Clara, Calif.	642,315	290,547	351,768	121.1
33	Del Norte, Calif.	17,771	8,078	9,693	120.0
34	Macomb, Mich.	405,804	184,961	220,843	119.4
35	Arapahoe, Colo.	113,426	52,125	61,301	117.6
36	Martin, Fla.	16,932	7,807	9,125	118.9
37	Ector, Tex.	90,995	42,102	48,893	116.1
38	Bucks, Pa.	308,567	144,620	163,947	113.4
39	Indian River, Fla.	25,309	11,872	13,437	113.2
40	South Norfolk, Va. ¹	22,035	10,434	11,601	111.2
41	Davis, Utah	64,760	30,867	33,893	109.3
42	Montgomery, Md.	340,923	164,401	176,527	107.4
43	Henrico, Va.	117,339	57,340	59,999	104.6
44	Seminole, Fla.	54,947	26,883	28,064	104.4
45	Du Page, Ill.	313,459	154,599	158,860	102.3
46	Clayton, Ga.	45,365	22,872	23,493	102.7
47	Meade, Ky.	13,938	9,422	9,516	101.0
48	Jefferson, La.	208,769	103,873	104,896	101.0
49	Maricopa, Ariz.	663,510	331,770	331,740	100.0

¹ Independent city.

² Hampton city and Elizabeth City County consolidated since 1950. 1950 population is for Hampton city only.

³ Newport News city and Warwick County consolidated since 1950. 1950 population is for Newport News city only.

uses the more stable divisions, so as to provide comparable statistics from decade to decade, insofar as possible.

Among the States where minor civil divisions are still recognized, there is a considerable variety of types. Although civil and judicial townships are the most frequent type of minor civil division, there are also beats, election districts, magisterial districts, towns, and gores. In some instances, as is discussed more fully below, none of the systems of subdivisions is adequate, and census county divisions have been substituted for them. The numbers and types of minor civil divisions in each State are shown in table 26.

Census county divisions.—For purposes of presenting census statistics, counties in 18 States have been subdivided into statistical areas, which are called "census county divisions" (CCDs). These divisions are used instead of the election precincts, townships, or other minor civil divisions for which population statistics were previously reported. These changes were made because the boundaries of the minor civil divisions observed in previous censuses changed frequently or were indefinite. Where the boundaries changed frequently, comparison of the data from one census to another was impeded and the statistics for the areas

were of limited value. Enumerators had difficulty in locating boundaries and in obtaining an accurate count of the population where the boundaries were indefinite, did not follow physical features, or were not well known by many of the inhabitants because the areas had lost most, if not all, of their local functions.

Census county divisions were established in the State of Washington for use in the 1950 Census. Between 1950 and 1960, they were established in 17 additional States, including 10 States in the West—Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Oregon, Utah, and Wyoming—and 7 States in the South—Alabama, Florida, Georgia, Kentucky, South Carolina, Tennessee, and Texas.

The census county divisions were defined with boundaries that seldom require change and that can be easily located. The boundaries normally follow physical features, such as roads, highways, trails, railroads, power lines, streams, and ridges. The use of survey lines was limited. The larger incorporated places are recognized as separate divisions, even though their boundaries may change as the result of annexations. Cities with 10,000 inhabitants or more generally are separate divisions. In addition, some incorporated places with as few as 2,500 inhabitants may be separate divisions. Where an unincorporated enclave exists within a city, it is included in the same census county division as the city. In establishing census county divisions, consideration was given to the trade or service areas of principal settlements and in some cases to major land use or physiographic differences.

Each census county division has a name which is ordinarily the name of the principal place located within it, except in the State of Washington where most county divisions are numbered rather than named. The boundaries of census county divisions were reviewed with the officials in each county and various State agencies and were approved by the governors of the States or their representatives. Descriptions of these boundaries are given in a set of reports entitled *United States Censuses of Population and Housing, 1960: Census County Division Boundary Descriptions*, U.S. Bureau of the Census, Washington, D.C., 1961.

In the State of Washington, some revisions in the census county divisions recognized in 1950 were made in the metropolitan counties in order to coordinate the divisions with the expanded system of census tracts.

Number and types of county subdivisions.—In addition to the 6,558 census county divisions, 31,309 minor civil divisions were recognized in the 1960 Census. Of these latter, nearly two-thirds (19,865) were townships, the next largest group were independent municipalities (4,494), and the third largest group, towns in the New England States, New York, and Wisconsin. Dependent municipalities are subdivisions of the minor civil divisions in which they are found.

In the 1960 Census, survey townships in the sparsely settled parts of Michigan, Nebraska, North and South Dakota, Minnesota, Maine, and New Hampshire were not separately identified. The population of these areas is shown as a residual for unorganized territory in the counties involved. In Alaska there are no subdivisions of the election districts (the county equivalents).

PLACES

Definition.—The term "place" as used in reports of the decennial censuses refers to a concentration of population regardless of the existence of legally prescribed limits, powers, or functions. Most of the places listed are incorporated as cities, towns, villages, or boroughs, however. In addition, the larger unincorporated places outside the urbanized areas were delineated and those with a population of 1,000 or more are presented in the same manner as incorporated places of equal size. Each unincorporated place possesses a definite nucleus of residences and has its boundaries drawn so as to include, if feasible, all the sur-

rounding closely settled area. Unincorporated places are shown within urbanized areas if they have 10,000 inhabitants or more and if there was an expression of local interest in their recognition. The towns in New England, townships in New Jersey and Pennsylvania, and counties recognized as urban are also counted as places.

Incorporated places.—Political units recognized as incorporated places in the reports of the decennial censuses are those which are incorporated as cities, boroughs, towns, and villages with the exception that towns are not recognized as incorporated places in the New England States, New York, and Wisconsin. The towns in these States are minor civil divisions similar to the townships found in other States and not necessarily thickly settled centers of population such as the cities, boroughs, towns, and villages in other States. Similarly, in New Jersey and Pennsylvania, where some townships possess powers and functions similar to those of incorporated places, the townships are not classified as "incorporated places." Thus some minor civil divisions which are "incorporated" in one legal sense of the word are not regarded by the Census Bureau as "incorporated places." Without this restriction on incorporated places all of the towns in the New England States, New York, and Wisconsin and the townships in New Jersey and Pennsylvania would have to be counted as incorporated places without any consideration of the nature of population settlement. A number of towns and townships in the New England States, New Jersey, and Pennsylvania do qualify, however, as urban towns or townships and in other towns and townships the densely settled portions are recognized as unincorporated places or as parts of an urban fringe.

Unincorporated places.—As in the 1950 Census, the Bureau delineated, in advance of enumeration, boundaries for densely settled population centers without corporate limits to be covered in the 1960 Census. Population data for 1950 are shown only for those unincorporated places which had the same name in both 1950 and 1960. Of course, the boundaries of many such places have changed as the communities have grown. All places in Hawaii, except Hilo and Honolulu, and all places in Puerto Rico are unincorporated.

Urban places.—The count of urban places in 1960 includes all incorporated and unincorporated places of 2,500 inhabitants or more and the towns, townships, and counties classified as urban. Unincorporated places are designated by "U" and urban towns and townships by "UT." Under the "previous" urban definition, places of 2,500 or more and the areas urban under special rules were urban places.

Relationship between incorporated places and other subdivisions.—In most States the incorporated places form subdivisions of the minor civil divisions in which they are located. In other States, however, all or some of the incorporated places are themselves also minor civil divisions. St. Louis, Baltimore, and 32 cities in Virginia are independent of any county organization. In a number of instances such as Philadelphia, New Orleans, and San Francisco, the incorporated place is coextensive with the county in which it is located. New York City, on the other hand, is made up of five counties. An incorporated place may be located in two or more minor civil divisions or in two or more counties. Since, however, incorporated places are chartered by a State, no place can be located in two States, and adjoining places of the same name in two States are quite separate incorporations.

Population of places by type.—The numbers and population of all places of various types are presented in table L. The 18,088 incorporated places of 1960 had a combined population of about 116 million, or 65 percent of the total population. The 1,576 unincorporated places of 1,000 or more had a population of about 6.5 million, and the 125 urban towns or townships and 1 urban county, a population of about 3.3 million. Classified by size,

incorporated places run the entire gamut from small to large. In 1960, there were 2,455 such places with a population of less than 200; and all 51 of the places of 250,000 inhabitants or more were incorporated places. Unincorporated places are arbitrarily cut off at the lower end of the size distribution at 1,000 and are heavily concentrated in the range from 1,000 to 5,000, although there was one unincorporated place of slightly more than 100,000. There are, of course, a great many unincorporated places with fewer than 1,000 inhabitants. Similarly, the definition of urban towns and townships places an arbitrary lower limit on their size.

Places of this type tended toward concentration within the range from 10,000 to 50,000.

Of the incorporated places, 1,214 were boroughs, 5,911 were cities, 6,085 were towns, and 4,878 were villages. Illinois had the largest number of incorporated places—1,247. If we exclude the District of Columbia and Hawaii, where Hilo and Honolulu are considered cities, the smallest number of incorporated places in any one State is the eight in Rhode Island. The number and types of incorporated places by States are shown in table 27.

Table L.—POPULATION IN GROUPS OF INCORPORATED AND UNINCORPORATED PLACES CLASSIFIED ACCORDING TO SIZE: 1960 AND 1950

[Urban towns and townships were not recognized in 1950]

Size of place	1960						1950					
	Incorporated places		Unincorporated places		Urban towns and townships ¹		Incorporated places		Unincorporated places			
	Number	Population	Number	Population	Number	Population	Number	Population	Number	Population	Number	Population
Total.....	18,088	115,910,865	1,576	6,583,649	126	3,312,559	17,145	96,108,257	1,470	3,946,768		
Places of 1,000,000 or more.....	5	17,484,069					5	17,404,450				
Places of 500,000 to 1,000,000.....	16	11,110,981					13	9,186,945				
Places of 250,000 to 500,000.....	30	10,765,881					23	8,241,580				
Places of 100,000 to 250,000.....	79	11,334,765					66	9,473,662				
Places of 50,000 to 100,000.....	180	12,511,061	1	104,270	1	183,401	126	8,890,823	1	249,034		
Places of 25,000 to 50,000.....	368	12,720,406	26	585,104	12	733,837	249	8,710,867				
Places of 10,000 to 25,000.....	978	16,061,679	101	858,469	40	1,371,747	753	11,528,409	26	124,032		
Places of 5,000 to 10,000.....	1,282	9,030,786	104	1,666,850	55	940,757	1,090	7,586,541	38	351,350		
Places of 2,500 to 5,000.....	1,763	6,237,739	379	685,135	8	60,793	1,557	5,512,970	801	608,095		
Places of 1,000 to 2,500.....	3,515	5,570,178	996	1,304,255	10	38,024	3,415	5,594,869	1,050	1,018,041		
Places under 1,000.....	9,874	4,032,430		1,477,566			9,843	4,134,661		1,601,196		

¹ Includes one urban county (Arlington, Va.) with a population of 183,401.

Changes in city size, 1950 to 1960.—Between 1950 and 1960, a number of shifts took place in the rank of the leading cities (table 29). Among the 10 most populous cities, 5 kept their 1950 ranking. The cities which ranked first and second in 1950—New York and Chicago—retained their positions in 1960, as did Detroit, Baltimore, and Washington, which occupied fifth, sixth, and ninth place, respectively. Los Angeles replaced Philadelphia as the third most populous city. Houston became one of the 10 most populous cities for the first time, reaching the seventh position and replacing Cleveland, which now ranks as the eighth most populous city. St. Louis dropped from eighth to tenth place; and Boston, which occupied the tenth position in 1950, dropped to thirteenth in 1960. Among the top fifty cities in 1960, the greatest gains in rank were made by Phoenix, which

rose to twenty-ninth place from ninety-ninth, in 1950, and by Tampa, which rose to forty-eighth place from eighty-fifth place. The largest drops in rank were experienced by Jersey City, which fell from thirty-seventh place in 1950 to forty-seventh in 1960, and by Newark, which fell from twenty-first to thirtieth place during this period.

Statistics for cities of 25,000 or more that increased by more than 100 percent in the decade 1950 to 1960 are presented in table M. Many of these cities annexed large areas during the decade.

Annexations.—The population figure for an incorporated place at earlier censuses applies to the area of the place at the time of the given census. Hence, the indicated change in population over the decade reflects the effect of any annexations or detachments. In order to permit the analysis of the relative importance of population growth within old boundaries and of population added by annexation, separate counts of the population in annexed areas were made for the first time in the 1960 Census. The figures are presented in table 9 of the State reports. There were 8.8 million persons in 1960 living in territory annexed between 1950 and 1960 by incorporated places of 2,500 or more in 1950. Here (table N) statistics on annexations are presented for cities of 25,000 or more which had a population of 10,000 or more in the area annexed since 1950. An additional 57 cities of this size had between 5,000 and 10,000 persons living in areas annexed between 1950 and 1960. Tables Q and R give some indication of the relation between annexation and the rates of change in the population of the central cities of SMSA's during the decade.

Detachments from cities are far less frequent than annexations, and, for the most part, involve smaller areas. Information on the population residing in the detached areas was obtained for three cities. The largest number of persons involved was the 5,490 persons living in the area detached from Tuskegee, Ala. The numbers in the areas detached from White Bear Lake, Minn., and Brownwood, Texas, were 880 and 976, respectively. The detachment from Tuskegee, however, was subsequently nullified by judicial action.

TABLE M.—CITIES OF 25,000 OR MORE IN 1950 WHICH INCREASED BY 100 PERCENT OR MORE BETWEEN 1950 AND 1960

Rank according to percent increase	City	1960	1950	Increase, 1950 to 1960		1960 population in territory annexed between 1950 and 1960	
				Number	Percent	Number	As percent of the 1950 to 1960 increase ¹
1	Tucson, Ariz.....	212,892	45,454	167,438	368.4	167,112	99.8
2	Phoenix, Ariz.....	430,170	106,818	323,352	311.1	332,398	100.0
3	Pasadena, Ohio.....	82,845	28,897	53,948	186.7		
4	Odessa, Tex.....	80,338	29,495	50,843	172.4	51,171	100.6
5	Newport News, Va.....	113,662	42,368	71,304	168.3	71,429	100.2
6	San Leandro, Calif.....	65,962	27,542	38,420	139.5	37,766	98.3
7	Vallejo, Calif.....	60,577	26,038	34,539	133.8	37,600	107.9
8	Fort Lauderdale, Fla.....	83,045	36,328	47,320	130.3	6,640	18.3
9	Tampa, Fla.....	274,970	124,681	150,289	120.5	140,331	93.4
10	Santa Ana, Calif.....	100,350	45,533	54,817	120.4	29,027	53.0
11	San Jose, Calif.....	204,196	95,280	108,916	114.3	99,380	91.2
12	El Paso, Tex.....	276,687	130,485	146,202	112.0	124,155	84.9
13	Albuquerque, N. Mex.....	201,189	96,815	104,374	107.8	23,646	22.7
14	Palo Alto, Calif.....	52,287	25,475	26,812	105.2	17,683	66.0

¹ A figure greater than 100.0 indicates a decline in population in 1950 territory of city.

Table N.—CITIES OF 25,000 OR MORE IN 1950 WHICH HAD 10,000 INHABITANTS OR MORE LIVING IN TERRITORY ANNEXED BETWEEN 1950 AND 1960

Rank	City	Population living in annexed territory in 1960		Rank	City	Population living in annexed territory in 1960		Rank	City	Population living in annexed territory in 1960	
		Number	Percent of 1960 population of city			Number	Percent of 1960 population of city			Number	Percent of 1960 population of city
1	Phoenix, Ariz.	332,398	75.7	36	Omaha, Nebr.	40,216	13.3	70	Charleston, W. Va.	18,685	21.8
2	Houston, Tex.	251,183	26.8	37	Denver, Colo.	38,283	7.8	71	Orlando, Fla.	18,601	21.0
3	Dallas, Tex.	192,707	28.4	38	San Leandro, Calif.	37,766	57.3	72	Lawton, Okla.	18,262	29.6
4	Atlanta, Ga.	171,497	35.2	39	Vallejo, Calif.	37,600	61.8	73	Palo Alto, Calif.	17,683	33.8
5	Tucson, Ariz.	167,112	78.5	40	Austin, Tex.	37,353	20.0	74	Albany, Ga.	17,569	31.4
6	Tampa, Fla.	140,331	51.0	41	Portsmouth, Va.	36,719	32.0	75	Ann Arbor, Mich.	16,999	24.8
7	San Antonio, Tex.	139,492	23.7	42	Greensboro, N.C.	36,117	30.2	76	High Point, N.C.	16,115	26.0
8	El Paso, Tex.	124,155	44.9	43	Shreveport, La.	35,241	21.4	77	Independence, Mo.	15,413	24.7
9	Milwaukee, Wis.	123,870	16.7	44	Lubbock, Tex.	34,389	26.7	78	Norwich, Conn.	15,409	40.0
10	Tulsa, Okla.	101,325	38.7	45	Jackson, Miss.	33,664	23.3	79	Terre Haute, Ind.	15,266	21.0
11	San Jose, Calif.	99,380	48.7	46	Dayton, Ohio	32,772	12.5	80	Waco, Tex.	15,132	15.5
12	Norfolk, Va.	88,321	28.9	47	Kalamazoo, Mich.	29,976	36.5	81	Parkersburg, W. Va.	14,467	32.3
13	Seattle, Wash.	86,079	15.5	48	Springfield, Mo.	29,861	31.1	82	Columbia, S.C.	14,184	14.6
14	Wichita, Kans.	83,490	32.8	49	Santa Ana, Calif.	29,027	28.9	83	Decatur, Ill.	14,026	13.0
15	Columbus, Ohio	75,635	16.0	50	Raleigh, N.C.	28,536	30.4	84	Montgomery, Ala.	13,757	10.2
16	Newport News, Va.	71,429	62.8	51	Madison, Wis.	27,899	22.0	85	Danville, Va.	13,492	28.9
17	Oklahoma City, Okla.	70,176	21.6	52	Fort Wayne, Ind.	26,908	16.6	86	Little Rock, Ark.	13,219	12.3
18	Memphis, Tenn.	69,095	13.9	53	Evansville, Ind.	26,525	18.0	87	Hamilton, Ohio	13,171	18.2
19	San Diego, Calif.	65,843	11.5	54	Savannah, Ga.	25,193	16.9	88	Pensacola, Fla.	13,143	28.2
20	Louisville, Ky.	62,229	15.9	55	Rockford, Ill.	24,849	19.6	89	San Bernardino, Calif.	12,803	13.9
21	Long Beach, Calif.	59,159	17.2	56	West Allis, Wis.	24,339	35.7	90	Birmingham, Ala.	12,714	3.7
22	Fort Worth, Tex.	56,799	16.9	57	Pueblo, Colo.	24,136	26.5	91	Owensboro, Ky.	12,588	29.6
23	Charlotte, N.C.	56,706	28.1	58	Bakersfield, Calif.	23,976	42.2	92	Salina, Kans.	12,582	29.1
24	Mobile, Ala.	54,452	27.9	59	Billings, Mont.	23,855	45.2	93	Great Falls, Mont.	11,844	21.4
25	Sacramento, Calif.	52,672	27.5	60	Albuquerque, N. Mex.	23,646	11.8	94	Lansing, Mich.	11,766	10.9
26	Odessa, Tex.	51,171	63.7	61	Colorado Springs, Colo.	22,703	32.3	95	New Albany, Ind.	11,339	30.0
27	Indianapolis, Ind.	47,449	10.0	62	Wauwatosa, Wis.	20,385	35.8	96	Portland, Oreg.	11,013	3.0
28	Wichita Falls, Tex.	46,122	45.3	63	Tallahassee, Fla.	20,342	42.2	97	Tuscaloosa, Ala.	10,988	17.3
29	Amarillo, Tex.	45,383	32.9	64	Alexandria, Va.	20,159	22.1	98	Tyler, Tex.	10,893	21.3
30	Fresno, Calif.	44,567	33.3	65	Winston-Salem, N.C.	20,003	18.0	99	Reno, Nev.	10,629	20.7
31	Arlene, Tex.	43,930	48.6	66	Glendale, Calif.	19,478	16.3	100	Joliet, Ill.	10,390	15.6
32	Corpus Christi, Tex.	43,638	26.0	67	Toledo, Ohio	19,171	6.0	101	Eugene, Oreg.	10,381	20.4
33	Columbus, Ga.	43,459	37.2	68	Des Moines, Iowa	18,937	9.1	102	Asheville, N.C.	10,109	16.8
34	Topeka, Kans.	42,029	35.2	69	Stockton, Calif.	18,810	21.8	103	Appleton, Wis.	10,040	20.7
35	Kansas City, Mo.	42,018	8.8								

STANDARD METROPOLITAN STATISTICAL AREAS

Definition.—It has long been recognized that for many types of analysis it is necessary to consider as a unit the entire population in and around a city, the activities of which form an integrated economic and social system. Prior to the 1950 Census, areas of this type had been defined in somewhat different ways for different purposes and by various agencies. Leading examples were the metropolitan districts of the Census of Population, the industrial areas of the Census of Manufactures, and the labor market areas of the Bureau of Employment Security. To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Bureau of the Budget has established "standard metropolitan statistical areas" (SMSA's). (In the 1950 Census, these areas were referred to as "standard metropolitan areas.") Every city of 50,000 inhabitants or more according to the 1960 Census is included in an SMSA.

The definitions and titles of SMSA's are established by the Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. This committee is composed of representatives of the major statistical agencies of the Federal Government. The criteria used by the Bureau of the Budget in establishing the SMSA's are presented below. (See the Bureau of the Budget publication *Standard Metropolitan Statistical Areas*, U.S. Government Printing Office, Washington, D.C., 1961.)

The definition of an individual SMSA involves two considerations: First, a city or cities of specified population to constitute the central city and to identify the county in which it is located

as the central county; and, second, economic and social relationships with contiguous counties which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined.⁷ SMSA's may cross State lines.

Population criteria.—The criteria for population relate to a city or cities of specified size according to the 1960 Census.

1. Each SMSA must include at least:

a. One city with 50,000 inhabitants or more, or

b. Two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000.

2. If each of two or more adjacent counties has a city of 50,000 inhabitants or more (or twin cities under 1b) and the cities are within 20 miles of each other (city limits to city limits), they will be included in the same area unless there is definite evidence that the two cities are not economically and socially integrated.

Criteria of metropolitan character.—The criteria of metropolitan character relate primarily to the attributes of the contiguous county as a place of work or as a home for a concentration of nonagricultural workers.

3. At least 75 percent of the labor force of the county must be in the nonagricultural labor force.⁸

⁷ Central cities are those appearing in the SMSA title. A "contiguous" county either adjoins the county or counties containing the largest city in the area, or adjoins an intermediate county integrated with the central county. There is no limit to the number of tiers of outlying metropolitan counties so long as all other criteria are met.

⁸ Nonagricultural labor force is defined as those employed in non-agricultural occupations, those experienced unemployed whose last occupation was a nonagricultural occupation, members of the Armed Forces, and new workers.

4. In addition to criterion 3, the county must meet at least one of the following conditions:

a. It must have 50 percent or more of its population living in contiguous minor civil divisions^a with a density of at least 150 persons per square mile, in an unbroken chain of minor civil divisions with such density radiating from a central city in the area.

b. The number of nonagricultural workers employed in the county must equal at least 10 percent of the number of nonagricultural workers employed in the county containing the largest city in the area, or the county must be the place of employment of 10,000 nonagricultural workers.

c. The nonagricultural labor force living in the county must equal at least 10 percent of the number of the nonagricultural labor force living in the county containing the largest city in the area, or the county must be the place of residence of a nonagricultural labor force of 10,000.

5. In New England, the city and town are administratively more important than the county, and data are compiled locally for these minor civil divisions. Here, towns and cities are the units used in defining SMSA's. In New England, because smaller units are used and more restricted areas result, a population density criterion of at least 100 persons per square mile is used as the measure of metropolitan character.

Criteria of integration.—The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and central county.

6. A county is regarded as integrated with the county or counties containing the central cities of the area if either of the following criteria is met:

a. 15 percent of the workers living in the county work in the county or counties containing central cities of the area, or

b. 25 percent of those working in the county live in the county or counties containing central cities of the area.

Only where data for criteria 6a and 6b are not conclusive are other related types of information used as necessary. This information includes such items as the average number of telephone calls per subscriber per month from the county to the county containing central cities of the area; percent of the population in the county located in the central city telephone exchange area; newspaper circulation reports prepared by the Audit Bureau of Circulation; analysis of charge accounts in retail stores of central cities to determine the extent of their use by residents of the contiguous county; delivery service practices of retail stores in central cities; official traffic counts; the extent of public transportation facilities in operation between central cities and communities in the contiguous county; and the extent to which local planning groups and other civic organizations operate jointly.

Criteria for titles.—The criteria for titles relate primarily to the size and number of central cities.

7. The complete title of an SMSA identifies the central city or cities and the State or States in which the SMSA is located:

a. The name of the SMSA includes that of the largest city.

b. The addition of up to two city names may be made in the area title, on the basis and in the order of the following criteria:

(1) The additional city has at least 250,000 inhabitants.

(2) The additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000 except that both city names are used in those instances where cities qualify under criterion 1b. (A city which qualified as a secondary central city in 1950 but which does not qualify in 1960 has been temporarily retained as a central city.)

c. In addition to city name, the area titles contain the name of the State or States in which the area is located.

Relation to earlier censuses.—In the 1950 Census reports, data were presented for standard metropolitan areas (SMA's) and in several earlier censuses a somewhat similar type of area called the "metropolitan district" was used. In 1959, the criteria for delineating SMA's were revised by the Bureau of the Budget,

^a A contiguous minor civil division either adjoins a central city in an SMSA or adjoins an intermediate minor civil division of qualifying population density. There is no limit to the number of tiers of contiguous minor civil divisions so long as the minimum density requirement is met in each tier.

and, at the same time, the areas were designated as standard metropolitan statistical areas. The comparative figures shown here for 1950 apply to the SMSA as defined in 1960.

Standard consolidated areas.—In view of the special importance of the metropolitan complexes around New York and Chicago, the Nation's largest cities, several contiguous SMSA's and additional counties that do not appear to meet the formal integration criteria but do have strong interrelationships of other kinds have been combined into the New York-Northeastern New Jersey and the Chicago-Northwestern Indiana Standard Consolidated Areas, respectively. The former is identical with the New York-Northeastern New Jersey SMA of 1950, and the latter corresponds roughly to the Chicago SMA of 1950 (two more counties having been added).

Relation between population in standard metropolitan statistical areas and urbanized areas.—The urbanized area can be characterized as the physical city as distinguished from both the legal city and the metropolitan community. In most cases urbanized areas are smaller than SMSA's and are contained in SMSA's. However, in a few instances, the fact that the boundaries of SMSA's are determined by county lines, and those of urbanized areas by the pattern of urban growth, means that there are small segments of urbanized areas which lie outside SMSA's. In general then, urbanized areas represent the thickly settled portions of the SMSA's. Because of discontinuities in land settlement, there are also some cases in which a single SMSA contains several urbanized areas. As the foregoing discussion suggests, the population in urbanized areas, but outside SMSA's, is relatively small as compared with the population in SMSA's outside urbanized areas. Thus, slightly less than 1 percent of the population of urbanized areas was in areas outside SMSA's (table O). The population of SMSA's outside urbanized areas, however, constitutes a larger proportion of the total population of SMSA's (15.8 percent). This situation reflects, as might be expected, the existence of considerable rural area in metropolitan counties, particularly outside the Northeast.

TABLE O.—POPULATION IN AND OUTSIDE URBANIZED AREAS AND STANDARD METROPOLITAN STATISTICAL AREAS: 1960

Location	Population	In standard metropolitan statistical areas	Outside standard metropolitan statistical areas
Total.....	179,323,175	112,885,178	66,437,997
In urbanized areas.....	95,848,487	95,078,272	77,215
Outside urbanized areas.....	83,474,688	17,806,906	66,663,782

Standard metropolitan statistical areas in Puerto Rico.—There are three standard metropolitan statistical areas in Puerto Rico.—Mayagüez, Ponce, and San Juan. The largest of these, San Juan, had a population of 588,805, slightly larger than the Rochester area and slightly less than the Jersey City area.

TABLE P.—POPULATION IN GROUPS OF STANDARD METROPOLITAN STATISTICAL AREAS CLASSIFIED ACCORDING TO SIZE: 1940 TO 1960

(Data relate to areas as defined for 1960)

Size of area	Number of areas			Population		
	1960	1950	1940	1960	1950	1940
Total.....	212	212	212	112,885,178	89,816,903	72,634,463
3,000,000 or more.....	5	5	3	81,763,409	25,788,967	16,476,197
1,000,000 to 3,000,000.....	19	10	9	29,818,571	16,627,603	16,210,025
500,000 to 1,000,000.....	29	21	16	19,214,817	14,439,937	11,050,897
250,000 to 500,000.....	48	44	36	15,829,067	15,209,376	12,067,871
100,000 to 250,000.....	89	89	76	14,497,817	14,045,736	12,077,929
Under 100,000.....	22	43	72	1,761,407	3,205,234	5,005,527

Trends in population, 1950 to 1960.—The population of 112.9 million in standard metropolitan statistical areas (SMSA's) represents an increase of 23.6 million, or 26.4 percent, over the 89.3 million inhabitants of these areas in 1950 (table Q). SMSA's stand in marked contrast with the remainder of the country in which the rate of increase was only 7.1 percent.

The 5.6 million increase in the population of central cities to a total of 58.0 million persons in 1960, represented a 10.8 percent increase over the 1950 population, a rate of growth considerably less than that for the country as a whole. In the outlying parts of the SMSA's, however, the population increased by 48.5 percent between 1950 and 1960, growing from 36.9 million persons to 54.9 million. Of the increase of about 28 million for the United States during the decade, about 84 percent occurred in SMSA's and nearly two-thirds occurred outside the central cities.

The metropolitan-nonmetropolitan pattern of increase varied considerably among the regions. The population in and outside metropolitan areas of the Northeast increased at about the same rate (13.0 and 13.6, respectively), that of central cities decreased by about 3 percent, and that of the suburban ring increased by more than one-third. In the North Central States, the rate of increase in metropolitan areas was over three times that outside metropolitan areas (23.5 vs. 6.6 percent). Central cities showed a modest increase of 4 percent, and the suburban ring increased by 56 percent. In the South, the population of standard metropolitan statistical areas increased at a rate 13 times as great as the population living outside such areas (36.2 vs. 2.7 percent); that of central cities increased by more than one quarter, and that of the suburban ring by almost one-half. In the West, the population of the metropolitan areas increased at more than twice the rate of the population of nonmetropolitan areas (49 vs. 19 percent). The rate of increase for central cities was about 31 percent and that of the outlying area about 66 percent.

The variations in rates of increase among SMSA's of different sizes were less extensive (table R). The population increased

most rapidly in those SMSA's that ranged in size from 500,000 to 1,000,000, where the rate of increase was 36.0 percent. Among the SMSA's of other size classes, the rate of population growth ranged only from a low of 23.2 percent for those areas of 3,000,000 or more to 25.8 percent for areas of 100,000 to 250,000. The relation between growth rates of central cities and outlying areas was clearly associated with the size of the SMSA. In the five SMSA's of 3,000,000 or more, the gain in central cities was only 1 percent whereas the increase in the suburban ring was 71 percent. Progressively, as size declined, the rate of growth of central cities increased in relation to that of the ring, so that in SMSA's of less than 100,000, the rate for the central cities (29 percent) exceeded that for the ring (11 percent).

Annexations of territory from the outlying areas by central cities considerably affected the rates of population change during the decade within the two components of SMSA's (table Q). Of the increase of 10.8 percent in the population of central cities, 9.3 percent resulted from annexations, and only 1.5 percent from the increase of population within the 1950 city limits. The 58.0 million persons in central cities in 1960 included 4.9 million living in sections that had been annexed to these cities since the previous census. Large differences existed in the relative contributions resulting from annexations among the central cities of SMSA's of the various size classes and regions. The smallest change in central cities from annexations occurred in metropolitan areas of 3,000,000 or more, where these gains amounted to only 0.4 percent, compared to an increase of 0.6 percent through growth within the 1950 city limits. In SMSA's of 1,000,000 to 3,000,000, the population within the 1950 boundaries of central cities declined by 2.2 percent, but annexations added 7.8 percent to the 1950 total. In each of the size classes of SMSA's with fewer than one million inhabitants, more than two-thirds of the increase in the population of central cities resulted from annexations.

Table Q.—POPULATION INSIDE AND OUTSIDE CENTRAL CITY OR CITIES OF STANDARD METROPOLITAN STATISTICAL AREAS WITH POPULATION OF AREAS ANNEXED TO CENTRAL CITIES, BY REGIONS: 1960 AND 1950

[Minus sign (—) denotes decrease]

Region and component parts of SMSA	1960	1950	Change, 1950 to 1960						1960 population on basis of 1950 limits of central cities
			Total		Based on 1950 limits of central cities		From annexations		
			Number	Percent	Number	Percent	Number	Percent	
UNITED STATES									
In SMSA's.....	112,885,178	89,316,903	23,568,275	26.4	23,568,275	26.4	-----	-----	112,885,178
Central cities.....	58,004,334	52,371,379	5,632,955	10.8	781,472	1.5	4,851,483	9.3	53,152,851
Outside central cities.....	54,880,844	36,945,524	17,935,320	48.5	22,786,808	61.7	-4,851,483	-13.1	59,732,327
NORTHEAST									
In SMSA's.....	35,346,505	31,267,169	4,079,336	13.0	4,079,336	13.0	-----	-----	35,346,505
Central cities.....	17,321,731	17,881,490	-559,759	-3.1	-579,874	-3.2	20,115	0.1	17,301,616
Outside central cities.....	18,024,774	13,385,679	4,639,095	34.7	4,659,210	34.8	-20,115	-0.2	18,044,889
NORTH CENTRAL									
In SMSA's.....	30,959,961	25,074,674	5,885,287	23.5	5,885,287	23.5	-----	-----	30,959,961
Central cities.....	16,510,746	15,836,656	674,090	4.3	-257,693	-1.6	931,673	5.9	15,579,073
Outside central cities.....	14,449,215	9,238,018	5,211,197	56.4	6,142,970	66.5	-931,673	-10.1	15,380,888
SOUTH									
In SMSA's.....	26,447,395	19,417,751	7,029,644	36.2	7,029,644	36.2	-----	-----	26,447,395
Central cities.....	15,061,777	11,720,837	3,340,940	28.5	615,807	5.3	2,725,133	23.3	12,386,644
Outside central cities.....	11,385,618	7,696,914	3,688,704	47.9	6,413,837	83.8	-2,725,133	-35.4	14,110,751
WEST									
In SMSA's.....	20,131,317	13,557,309	6,574,008	48.5	6,574,008	48.5	-----	-----	20,131,317
Central cities.....	9,110,080	6,932,396	2,177,684	31.4	1,003,122	14.5	1,174,562	16.9	7,935,518
Outside central cities.....	11,021,237	6,624,913	4,396,324	66.4	5,570,886	84.1	-1,174,562	-17.7	12,196,799

Table R.—POPULATION INSIDE AND OUTSIDE CENTRAL CITY OR CITIES OF STANDARD METROPOLITAN STATISTICAL AREAS WITH POPULATION OF AREAS ANNEXED TO CENTRAL CITIES, BY SIZE OF AREA: 1960 AND 1950

[Minus sign (—) denotes decrease]

Size and component parts of SMSA	1960	1950	Change, 1950 to 1960						1960 population on basis of 1950 limits of central cities
			Total		Based on 1950 limits of central cities		From annexations		
			Number	Percent	Number	Percent	Number	Percent	
ALL SIZES									
In SMSA's.....	112,885,178	89,316,903	23,568,275	26.4	23,568,275	26.4			112,885,178
Central cities.....	58,004,384	52,371,379	5,632,955	10.8	781,472	1.5	4,851,483	9.3	53,152,851
Outside central cities.....	54,880,844	36,945,524	17,935,320	48.5	22,786,803	61.7	-4,851,483	-13.1	59,732,327
3,000,000 OR MORE									
In SMSA's.....	31,763,499	25,788,067	5,974,532	23.2	5,974,532	23.2			31,763,499
Central cities.....	17,828,227	17,655,217	173,010	1.0	99,318	0.6	73,692	0.4	17,754,535
Outside central cities.....	13,935,272	8,133,750	5,801,522	71.3	5,875,214	72.2	-73,692	-0.9	14,008,964
1,000,000 TO 3,000,000									
In SMSA's.....	29,818,571	23,858,113	5,960,458	25.0	5,960,458	25.0			29,818,571
Central cities.....	12,707,503	12,037,125	670,378	5.6	-270,275	-2.2	940,653	7.8	11,766,850
Outside central cities.....	17,111,068	11,820,988	5,290,080	44.8	6,230,733	52.7	-940,653	-8.0	18,051,721
500,000 TO 1,000,000									
In SMSA's.....	19,214,817	14,125,628	5,089,189	36.0	5,089,189	36.0			19,214,817
Central cities.....	10,126,684	8,340,585	1,786,099	21.4	396,636	4.8	1,389,463	16.7	8,737,221
Outside central cities.....	9,088,133	5,785,043	3,303,090	57.1	4,692,553	51.1	-1,389,463	-24.0	10,477,596
250,000 TO 500,000									
In SMSA's.....	15,829,067	12,603,137	3,225,930	25.6	3,225,930	25.6			15,829,067
Central cities.....	7,750,597	6,671,381	1,079,216	16.2	146,234	2.2	932,982	14.0	6,817,615
Outside central cities.....	8,078,470	5,931,756	2,146,714	36.2	3,079,696	51.9	-932,982	-15.7	9,011,462
100,000 TO 250,000									
In SMSA's.....	14,497,817	11,525,685	2,972,132	25.8	2,972,132	25.8			14,497,817
Central cities.....	8,235,553	6,617,683	1,617,870	24.4	319,286	4.8	1,298,584	19.6	6,936,969
Outside central cities.....	6,262,264	4,908,002	1,354,262	27.6	2,652,846	54.1	-1,298,584	-26.5	7,560,848
UNDER 100,000									
In SMSA's.....	1,761,407	1,415,373	346,034	24.4	346,034	24.4			1,761,407
Central cities.....	1,365,770	1,049,388	306,382	29.2	90,273	8.6	216,109	20.1	1,139,661
Outside central cities.....	405,637	365,985	39,652	10.8	255,761	69.9	-216,109	-59.6	621,746

Table S.—POPULATION OF STATES BY METROPOLITAN-NONMETROPOLITAN RESIDENCE: 1960 AND 1950

[Figures relate to areas as defined for 1960. Minus sign (—) denotes decrease]

State	1960		1950		Percent increase, 1950 to 1960		State	1960		1950		Percent increase, 1950 to 1960	
	In SMSA's	Outside SMSA's	In SMSA's	Outside SMSA's	In SMSA's	Outside SMSA's		In SMSA's	Outside SMSA's	In SMSA's	Outside SMSA's	In SMSA's	Outside SMSA's
United States.....	112,885,178	66,437,997	89,316,903	62,008,895	26.4	7.1	Missouri.....	2,499,968	1,819,845	2,113,391	1,335,762	18.0	-0.9
Alabama.....	1,488,101	1,778,639	1,230,249	1,831,494	21.0	-2.9	Montana.....	122,434	522,333	108,902	482,122	40.0	8.3
Alaska.....	—	228,167	—	128,643	—	75.8	Nebraska.....	530,043	881,287	416,455	909,055	27.3	-3.1
Arizona.....	929,170	372,991	472,986	276,601	96.4	34.8	Nevada.....	211,759	73,519	98,494	61,589	115.0	19.4
Arkansas.....	341,351	1,444,921	293,501	1,616,010	16.3	-10.6	New Hampshire.....	107,637	499,284	95,257	437,985	13.0	14.0
California.....	13,590,821	2,126,383	8,988,655	1,597,508	51.2	33.1	New Jersey.....	4,787,604	1,279,178	3,986,569	848,760	20.1	50.7
Colorado.....	1,191,832	562,115	776,839	548,250	53.4	2.5	New Mexico.....	262,169	688,824	145,673	535,514	80.0	28.6
Connecticut.....	1,966,427	508,807	1,576,688	430,592	24.7	32.1	New York.....	14,352,693	2,429,611	12,656,238	2,173,954	13.4	11.8
Delaware.....	307,446	138,846	218,379	99,206	40.5	40.0	North Carolina.....	1,119,210	3,436,945	896,736	3,165,193	24.8	8.6
District of Columbia.....	763,956	—	802,178	—	-4.8	—	North Dakota.....	66,947	565,499	58,877	560,769	13.7	0.8
Florida.....	3,246,826	1,704,734	1,670,970	1,091,335	93.3	56.2	Ohio.....	6,748,362	2,958,035	5,445,395	2,501,232	23.9	18.3
Georgia.....	1,814,069	2,129,047	1,334,381	2,110,197	35.9	0.9	Oklahoma.....	1,021,610	1,306,674	775,504	1,457,847	31.7	-10.4
Hawaii.....	500,409	132,363	353,020	146,774	41.8	-9.8	Oregon.....	890,978	877,709	745,298	776,043	19.5	13.1
Idaho.....	—	607,191	—	588,637	—	13.3	Pennsylvania.....	8,813,274	2,506,092	8,024,682	2,473,330	9.8	1.3
Illinois.....	7,754,932	2,326,220	6,439,062	2,273,114	20.4	2.3	Rhode Island.....	740,819	118,669	697,576	94,320	6.2	25.8
Indiana.....	2,241,307	2,421,191	1,796,904	2,137,320	24.7	13.3	South Carolina.....	768,024	1,614,570	572,989	1,544,038	34.0	4.6
Iowa.....	915,762	1,841,775	776,366	1,844,707	18.0	-0.2	South Dakota.....	88,575	593,939	70,910	581,830	22.1	2.1
Kansas.....	813,804	1,364,307	555,809	1,349,490	46.4	1.1	Tennessee.....	1,632,747	1,934,342	1,349,511	1,942,207	21.0	-0.4
Kentucky.....	1,036,036	2,002,118	846,475	2,098,331	22.4	-4.6	Texas.....	6,072,706	3,500,971	4,267,442	3,443,752	42.3	1.8
Louisiana.....	1,627,167	1,629,865	1,224,675	1,458,841	32.9	11.7	Utah.....	600,770	289,857	440,126	288,736	36.5	16.5
Maine.....	190,950	778,315	188,308	725,406	1.4	7.3	Vermont.....	—	389,881	—	377,747	—	3.2
Maryland.....	2,425,346	875,343	1,763,982	579,019	37.5	16.6	Virginia.....	2,020,626	1,945,323	1,462,898	1,855,782	38.1	4.9
Massachusetts.....	4,587,101	701,477	4,041,791	648,723	8.5	17.4	Washington.....	1,800,945	1,052,289	1,427,318	1,951,647	26.2	10.6
Michigan.....	5,720,692	2,102,552	4,552,870	1,819,836	25.7	16.6	West Virginia.....	575,137	1,285,284	556,127	1,449,335	3.4	-11.3
Minnesota.....	1,752,698	1,661,166	1,387,478	1,595,005	26.3	4.1	Wisconsin.....	1,828,871	2,122,906	1,456,157	1,978,418	25.6	7.3
Mississippi.....	137,045	1,691,096	142,164	2,036,760	31.6	-2.2	Wyoming.....	—	330,066	—	290,529	—	13.6

In the North Central States and in the Northeast, the population within the 1950 limits of central cities declined by 2 to 3 percent; but in the former region, annexations of territory containing nearly one million persons in 1960 enable the central cities to show an increase of 4 percent. The greatest numerical and proportionate increases to central cities from annexations occurred in the South and West; in the South this amounted to about four-fifths of the increase experienced by central cities between 1950 and 1960 (23.3 percent of the 28.5 percent) and in the West, over one-half (16.9 percent of the 31.4 percent).

Of the 212 standard metropolitan statistical areas, 204 gained population between 1950 and 1960, and 8 lost population (table 31). The areas with population losses were Altoona, Jersey City, Johnstown, St. Joseph, Scranton, Texarkana, Wheeling, and Wilkes-Barre-Hazleton. Six of these areas—St. Joseph and Texarkana were the exceptions—had also lost population in the previous decade. In each of the declining areas, except St. Joseph and Texarkana, the central cities also lost population (table 33). The two gains in central cities resulted from annexations of outlying territory; the population within the 1950 city limits declined. Of the 204 SMSA's that gained population, 138, or about two-thirds, had increases of 20 percent or more, and 62, or slightly less than three-tenths of all metropolitan areas, had increases of one-third or more. One area, that of Fort Lauderdale-Hollywood, almost quadrupled in population, with an increase of 297.9 percent. Six other areas, those of Las Vegas, Midland, Orlando, San Jose, Odessa, and Phoenix, doubled in population, experiencing increases ranging from 100.0 to 163.0 percent.

Population density.—In 1960, the population per square mile of land area for all of the 212 standard metropolitan statistical areas in the United States was 364 as compared with 51 in the country as a whole (table 34). There were 2 standard metropolitan statistical areas—Jersey City and New York—with more than 3,000 inhabitants per square mile. At the other end of the scale 13 areas—Bakersfield, Billings, Duluth-Superior, Eugene, Fargo-Moorhead, Great Falls, Laredo, Las Vegas, Pueblo, Reno, San Angelo, San Bernardino-Riverside-Ontario, and Tucson—had a population density of less than 50 per square mile. This extreme variation in density among standard metropolitan areas is an indication, of course, of the limitations of whole counties as a basis for defining such areas. The area of San Bernardino County, Calif., for example, is greater than that of any of the New England States except Maine and nearly 10 times that of the New York Standard Metropolitan Statistical Area. In short, in those parts of the country where counties are large, the use of counties yields only a very rough approximation to the genuinely metropolitan territory, although most of the population is contained in genuinely metropolitan territory.

There was also considerable variability in density among the central cities of standard metropolitan statistical areas. Among central cities, the number of persons per square mile ranged from 24,697 in New York to 680 in Lewiston-Auburn. For areas outside central cities, this figure ranged from 12,871 in the Jersey City Standard Metropolitan Statistical Area to 1 in the Laredo area.

STATE ECONOMIC AREAS AND ECONOMIC SUBREGIONS

Definition of State economic areas.—State economic areas are relatively homogeneous subdivisions of States. They consist of single counties or groups of counties which have similar economic and social characteristics. The boundaries of these areas have been drawn in such a way that each State is subdivided into relatively few parts, with each part having certain significant characteristics which distinguish it from adjoining areas.

The State economic areas were originally delineated for the 1950 Censuses. The grouping of the 3,103 counties or county equivalents in 1950 into State economic areas was the product of a special study sponsored by the Bureau of the Census in cooperation with the Bureau of Agricultural Economics and several State and private agencies. The delineation procedure was devised by Dr. Donald J. Bogue, then of the Scripps Foundation for Research in Population Problems, on loan to the Bureau of the Census.¹⁰

The 1960 set of State economic areas represents a limited revision of the 1950 areas. This revision takes into account changes in the definitions of standard metropolitan statistical areas, but no attempt was made to reexamine the original principles or to apply them to more recent data relating to homogeneity. In addition, State economic areas were delineated for Alaska and Hawaii for the first time. As a result of the revision, the number of areas was increased from 501 to 509. (In the reports of the 1950 Census of Population, combination of areas reduced the number of publication areas to 453.)

Relation to standard metropolitan statistical areas.—The combination of counties into State economic areas has been made for the entire country, and in this process the larger standard metropolitan statistical areas (those in 1960 with a central city of 50,000 or more and a total population of 100,000 or more) have been recognized as metropolitan State economic areas.¹¹ When a standard metropolitan statistical area is located in two or more States or economic subregions, each State part and each part in an economic subregion becomes a separate metropolitan State economic area. In New England this correspondence of metropolitan State economic areas and standard metropolitan statistical areas does not exist because State economic areas are composed of whole counties, whereas standard metropolitan statistical areas are built up from towns. Here a county with more than half its population in one or more standard metropolitan statistical areas is classified as a metropolitan State economic area if the county or a combination of counties containing the standard metropolitan statistical area or areas has 100,000 inhabitants or more. Of the State economic areas, 206 are metropolitan.

Uses of State economic areas.—In the establishment of State economic areas, factors in addition to industrial and commercial activities were taken into account. Demographic, climatic, physiographic, and cultural factors, as well as factors pertaining more directly to the production and exchange of agricultural and nonagricultural goods, were considered. The net result then is a set of areas, intermediate in size between States, on the one hand, and counties on the other, which are relatively homogeneous with respect to a large number of characteristics. Areas of this type are well adapted for use in a wide variety of studies in which State data are neither sufficiently refined nor homogeneous and in which the manipulation of county data presents real difficulty. Moreover, a standard set of areas, such as these, makes possible studies in widely different fields on a comparable area basis.

Economic subregions.—These areas represent combinations of State economic areas. The 509 State economic areas are consolidated into a set of 121 areas which cut across State lines but which, as intended, preserve to a great extent the homogeneous character of the State economic areas. No changes were made in the boundaries of the 119 economic subregions of 1950 in con-

¹⁰ For further discussion and materials on State economic areas and their uses, see U.S. Bureau of the Census, *State Economic Areas*, U.S. Government Printing Office, Washington, D.C., 1951.

¹¹ In 1950 those standard metropolitan areas with a total population of 100,000 or more in 1940 were recognized as metropolitan State economic areas. In 1960 the Green Bay, Wis., SMSA, which qualified as a metropolitan State economic area, was inadvertently not so recognized.

terminous United States. Two new subregions were established for the 1960 Census, one in Alaska and one in Hawaii. The economic subregions are perhaps best adapted to those analyses of the geographic distribution of characteristics of the population within the country as a whole in which there is no need for the recognition of State boundaries and in which the greater refinement permitted by the larger number of areas is desirable.

Figures on the population of the economic subregions and State economic areas by urban and rural residence are presented in table 38, and figure 7 shows the boundaries of the economic subregions and State economic areas. The State economic area in which a county is located is shown in table 24 in parentheses following the county name. A letter designates a metropolitan, and a figure a nonmetropolitan, State economic area.

SPECIAL CENSUSES

The Bureau of the Census has an established procedure for taking a special census at the request and expense of a local government or community. Generally, the areas for which special censuses are taken are those which have experienced an unusual increase in population, either because of changes in political boundaries or because of relatively high in-migration. Special censuses have also been taken to establish the population of newly incorporated places. The areas in which special censuses were conducted by the Bureau of the Census between April 1, 1950, and April 1, 1960, are shown in table 40; more than 1,500 special censuses were conducted during the decade 1950 to 1960.

The Bureau of the Census has published separately the results of the special censuses in varying detail in *Current Population Reports*, Series P-28.

GROUP QUARTERS

The population of institutions, military installations, dormitories, and other group quarters, is included as a part of the population of the city, township, or other political area in which such quarters are located. Population of this type in some cases forms an appreciable fraction of the total population of the city or town, and sometimes it seriously affects the distribution of the total by sex, age, or other characteristics. Although it has

not been found practicable to make any general provision for showing separately the population of these establishments individually, the population by race, age, and sex, excluding such establishments, is shown for counties and urban places with a population of 1,000 or more in group quarters (table 31 of the PC(1)-B State Reports). In addition, in tables 21 and 28 of the same series, the total population in group quarters is presented for all standard metropolitan statistical areas, urbanized areas, places of 10,000 or more, and counties. Finally, the Bureau of the Census will make available, on request, the 1960 population of the enumeration districts comprising large group quarters.

CENSUS TRACTS

Definition.—Census tracts are small areas into which large cities and metropolitan areas have been divided for statistical purposes. Tract boundaries were established cooperatively by a local committee and the Bureau of the Census, and were generally designed to achieve some uniformity of population characteristics, economic status, and living conditions. Initially, the average tract had about 4,000 residents. Tract boundaries were established with the intention of being maintained over a long time so that comparisons may be made from census to census.

Areas tracted in 1960.—In 1960, population and housing data are published for tracts in 180 areas in the United States and the Commonwealth of Puerto Rico, and these areas contain more than 23,000 tracts (table 41). Tract data were tabulated for 8 cities in 1910 and 1920, 18 cities in 1930, and 60 areas in 1940. In 1950, reports were published for 64 tracted areas. As the foregoing suggests, tracts were initially established for cities as such; but, as the program expanded, tracts were extended to cover heavily settled areas adjacent to cities. In the decade 1950 to 1960, the Bureau made an effort to encourage local committees in this extension, with the ultimate objective of having tracts established in all standard metropolitan statistical areas. In 1960, all but 2 of the 180 areas were standard metropolitan statistical areas, and 136 such areas were completely tracted.

Statistics on the population and housing characteristics for each tracted area are published in Series PHC(1) reports, *Census Tracts*.

POPULATION CHARACTERISTICS

Statistics on the characteristics of the population of the United States are presented in chapters B, C, and D of this report. The following text contains definitions of the major concepts used in the 1960 Census and summarizes the available evidence on quality of the census information.

The definitions of terms which are given below are consistent with the instructions given to the enumerators and to the field office personnel who reviewed the questionnaires. As in all censuses and surveys, however, there were some failures to execute these instructions exactly. The partial use of self-enumeration made it feasible to call the attention of respondents more uniformly in the 1960 Census than in prior censuses to some of the important inclusions and exclusions in the definitions. However, it was not feasible to give detailed instructions to the respondents, and some of their errors of understanding and reporting have undoubtedly gone undetected. A few types of known or suspected inaccuracies in the data arising from failure to apply the definitions correctly are noted in this text. Facsimiles of the principal forms used in the enumeration are shown in the section "Enumeration schedules and instructions."

QUALITY OF THE STATISTICS

Information on the quality of the statistics on population characteristics is available from a number of sources. Wherever

possible, indications of the accuracy of the data are given in connection with the discussion of each of the specific characteristics.

After the field work of the 1960 Censuses of Population and Housing was completed, the Bureau of the Census began a number of intensive evaluation studies. One of these studies was the Content Evaluation Study (referred to as the "CES"). In this survey a careful recanvass was made of a sample of persons, and intensive reinterviews were conducted.

The CES consisted of a "list" sample of persons originally enumerated in the census. Reinterviews were conducted with these persons in order to evaluate the accuracy of census information on selected population characteristics and as a secondary objective to discover cases of erroneous enumeration. The interviewer was to obtain responses before consulting previously obtained census responses. Following the reinterview procedure, the interviewer was to compare the new response with the corresponding census entries, and when there were differences, an effort was made to determine the more accurate response or an improved response. The study provided measures of the accuracy of the statistics on age, mobility status, educational attainment, school enrollment, number of children ever born, and income. A more detailed discussion of the findings of the CES

is presented in reports of the Evaluation and Research Program series.

The Post-Enumeration Survey, a study similar to the CES, was conducted in 1950, and the results are published in the *Post-Enumeration Survey: 1950*, Technical Paper No. 4, Bureau of the Census. The results of the 1960 Content Evaluation Study are not entirely comparable with those of the 1950 Post-Enumeration Survey. In considering comparative results, it should be noted that reported differences in quality may, in part, arise from improvement in procedures in the 1960 evaluation study, changes in accuracy between the 1960 and the 1950 Censuses, or both.

The 1960 evaluation program also included a Current Population Survey (CPS)-Census match similar to the corresponding project carried out in 1950. This study permitted a comparison of entries on the FOSDIC schedules in the 1960 Census with those in the April 1960 CPS for identical persons. From this comparison, measures of accuracy were developed for statistics on age, sex, color, marital status, household and family relationship, employment status, hours worked in 1959, weeks worked, occupation, industry, and income.

The study entailed matching the CPS household to the Census household and then determining whether the matched CPS household was in the Census 25-percent sample. (Since many of the items covered by the study were collected only on a sample basis, the cases were limited to those matched households which were included in the 25-percent sample.) Data for items in the study were then tabulated for identical persons as reported by the census and by the CPS and weighted to national totals by the CPS two-stage ratio estimation procedure. Much of the extensive editing for nonreporting and inconsistencies in the 1960 Census was not introduced in the census match data in these tabulations.

Some findings of the CPS-Census match on the subjects of employment status and weeks worked in 1959 are presented in this report. Further information on the results of this study and other studies conducted as part of the evaluation and research program will be presented in reports in the Evaluation and Research Program series.

On many subjects statistics are available from both the Census and the CPS. To the extent that data from the two sources are comparable, the degree of agreement between the two sets of published statistics provides some indication of their accuracy. Comparisons with CPS data are included for most of the pertinent subjects, and reasons for differences are discussed.

Nonresponse rates for the individual subjects are a further indication of quality of the data. Information on nonresponse rates and allocation procedures is given in the section "Extent and implications of editing" and in the appendix tables at the end of chapters B, C, and D.

MEDIAN

The median is presented in connection with the data on age, years of school completed, and income. It is the value which divides the distribution into two equal parts, one-half the cases falling below this value and one-half the cases exceeding this value.

In general, medians are computed from the class intervals shown in the tables in which they appear. Hence, medians shown in one table may differ from the corresponding medians in other tables where a different number of class intervals is shown. The medians shown with the distributions by single years of age which appear in tables 155, 156, 157, and 232, however, are based on 5-year age groups.

A plus (+) or minus (—) sign after the median indicates that the median is above or below that number. For example, a median of \$10,000+ for income indicates that the median fell in the interval "\$10,000 and over."

FARM-NONFARM RESIDENCE

Definitions

The rural population is subdivided into the rural-farm population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population. In the 1960 Census, the farm population includes persons living in rural territory on places of 10 or more acres from which sales of farm products amounted to \$50 or more in 1959 or on places of less than 10 acres from which sales of farm products amounted to \$250 or more in 1959. Through an error in computer programming, the small number (29,873 for the United States) of farm residents in workers' camps (including quarters for migratory agricultural workers) were erroneously classified as nonfarm in the tabulations for chapter C but are correctly classified as farm residents in chapter D. Persons in all other types of group quarters were properly classified as nonfarm.

Farm residence in accordance with this definition was determined from answers to the following questions on the Household Questionnaire:

H17 and H18. Is this house:

On a city lot
(or is this an apartment building)? ☐

OR

On a place of less than 10 acres? ☐ → Last year (1959), did sales of crops, livestock, and other farm products from this place amount to \$250 or more?

\$250 or more ☐

Less than \$250 or none ☐

OR

On a place of 10 or more acres? ☐ → Last year (1959), did sales of crops, livestock, and other farm products from this place amount to \$50 or more?

\$50 or more ☐

Less than \$50 or none ☐

If the reported value of sales was at least the amount specified for that size of place, the household was classified as living on a farm. Other persons in rural territory, including those living on "city lots," were classified as nonfarm residents. Persons were also classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.

Sales of farm products refer to the gross receipts from the sale of field crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during 1959.

Comparability

Earlier censuses of population.—Farm-nonfarm residence in 1950 was determined by respondents' answers to the question, "Is this house on a farm (or ranch)?" The instructions to the enumerators specified that "persons on farms who paid cash rent for this house and yard only are to be classified as nonfarm." In 1950 and 1960, persons living in group quarters on institutional grounds or in summer camps or motels were classified as non-farm residents. The definition adopted for 1960 employs more

restrictive criteria than the 1950 definition. One reason for the change was to make the definition of farm residence essentially consistent with the definition of a farm used in the agricultural census beginning with the 1959 Census of Agriculture. The net effect of the 1960 definition is to exclude from the farm population persons living on places considered farms by the occupants but from which agricultural products are not sold or from which sales are below the specified minimum. In previous censuses, farm-nonfarm residence was determined in cities and other territory classified as urban, but in 1960 no effort was made to identify farm population in urban areas. In 1950, this urban-farm population amounted to only about 300,000 persons in the country as a whole.

1959 Census of Agriculture.—According to the 1960 Census of Population, the rural-farm population numbered 13.4 million and rural-farm households numbered 3.6 million. According to the 1959 Census of Agriculture, there were 3.7 million farms and an estimated 3.4 million farm operators living on the farms they operated. The number of rural-farm households was 3.8 percent below the number of farms but 3.6 percent above the estimated number of farmers living on the farms they operated. Even if there had been no errors of enumeration, the number of farm households from the Census of Population would not equal exactly either the number of farms or the number of operators living on farms operated. The Census of Agriculture, for example, includes farms in urban territory. Moreover, there are two or more households on some farms and no resident households on other farms. In addition, the absence of a resident operator does not preclude the presence of a household, for example, that of a farm hand. Finally, the Census of Agriculture was taken in the fall of 1959, and evidence from other sources suggests that there was a decline in the number of farm residents between the time of this enumeration and that of the Census of Population.

1960 Sample Survey of Agriculture.—Data from a study in which schedules from this survey were matched with those of the 1960 Census of Population suggest that approximately 13 percent of the resident farm operator households in rural areas were not classified as farm households in the 1960 Census of Population. The nature of the matching procedure was such that it was not possible to identify and count the complementary group of households classified as farm in the Population Census, but as nonfarm in the agriculture survey.

Current Population Survey.—A test conducted in the CPS of April 1960 indicated that at that time the change in the definition of the farm population resulted in a net reduction of 4.2 million persons on farms, representing about 21 percent of the farm population under the old definition. The farm population of 15.7 million under the new definition indicated by the CPS, however, was 2.3 million greater than the 1960 Census count, 13.4 million. This discrepancy between the census and the CPS figures may be a function of several factors.

Although there is no conclusive evidence on the relative validity of the farm-nonfarm classification in the CPS as compared with that in the census, the differences between the CPS and census procedures already noted (see section above, "Current Population Survey") must be taken into consideration in evaluating the figure, 2.3 million. There is also a difference between the definition of urban territory in the census and that in the CPS. In the CPS of April 1960, the boundaries of urban areas used were still those of the 1950 Census of Population and did not include the annexations and other substantial expansions of urban territory that were incorporated in the 1960 Census of Population. In the 1960 Census, the determination of farm residence was limited to rural territory as defined in 1960. The effect of this difference was to classify an unknown but presumably small number of persons as rural farm in the CPS who are treated as urban in the reports of the 1960 Census. Finally, for some of

the households in the CPS sample in April 1960, the determination as to farm residence had been made as early as January whereas the determination for the households in the census was made as of the time of enumeration. In view of the continued decline in the number of farms, it is probable that a number of places that qualified as farms in January would no longer have been so classified in April.

AGE

Definition

The data on age were derived from answers to question P6 on the Advance Census Report. These answers were copied to the complete-count and sample FOSDIC forms, as explained in the section below on "Collection of data."

When was this person born ?	
(P6)	
Month	Year

The age classification is based on the age of the person in completed years as of April 1, 1960. For the first time since 1900, the Bureau of the Census obtained data on the age of the population by asking for date of birth. The respondent was requested to give the month and year of birth; for simplicity in the processing, however, only the quarter of year of birth was used in determining age. The comparable question in previous censuses was designed to obtain the age in completed years. It was believed that the use of self-enumeration coupled with the wording of the question in terms of date of birth would result in fewer errors in age reporting. On the other hand, there was a substantial rise in the proportion of persons reporting no information relating to age.

Assignment of Unknown Ages

In each census since 1940, the Bureau of the Census has estimated the age of a person when it was not reported. In censuses prior to 1940, with the exception of 1880, persons of unknown age were shown as a separate category. The summary totals for "14 years and over" and "21 years and over" for earlier censuses included all persons of "unknown age" since there is evidence that most of the persons for whom age was not reported were in the age classes above these limits. Both in 1940 and 1950, estimates for unknown ages were made for less than 0.2 percent of the population of the United States, using basically similar techniques of inferring age from related information for the person and other members of the family and household. In the sample statistics for 1960, birth date was estimated for 1.0 percent of the enumerated population on the basis of other information regarding the person reported on the census questionnaire. Also, birth date was allocated for an additional 0.9 percent of the population as a part of the process of substituting persons with reported characteristics for persons not tallied because of the enumerator's failure to interview households or because of mechanical failure in processing. This makes a total of about 1.9 percent of the population for whom age was estimated. Corresponding information on the extent to which age was estimated in the complete-count statistics is found in table B-1. For a discussion of the procedure followed in 1960 to estimate values for unknown items, including age, see the section below on "Editing of unacceptable data."

Errors in Age Statistics

Studies of age statistics collected in previous censuses have shown that, as the combined result of net underenumeration and of misstatement of age, the numbers in some age groups have been understated whereas those in other age groups have been overstated. One of the expected advantages of self-enumeration was a reduction in such misreporting. The respondent was given an opportunity to consult records and discuss his reply before responding.

Errors in single years of age.—In each census in which data on single years of age have been collected, there have been overstatements of ages ending in certain digits and understatements for other digits. Although this tendency toward "digit preference" or "age heaping" has declined fairly steadily, certain characteristic patterns and differentials (by sex, color, etc.) have persisted. In 1960, further reduction in the overall age heaping has occurred, but there have been changes in the pattern of digit preference. That some such changes might occur in the 1960 Census had been anticipated not only because of the use of self-enumeration but also because of the use of a question on date of birth rather than on completed year of age as a source of data on age.

Table T shows the relative preference for terminal digits of age in the United States censuses from 1880 to 1960 in terms of Myers' "blended method," and his summary index of the deviations from expected values. The gradual lessening of age heaping over the years is very clearly demonstrated in the table, both in the preference for specific digits and in the summary index. However, the drop in the index between 1950 and 1960 was greater than was to be expected from the trend of earlier years. In 1960, the index was only 0.8—a little more than a third of the 1950 index of 2.2.

TABLE T.—PERCENT OF POPULATION WITH AGES ENDING IN EACH DIGIT 0 TO 9: 1880 TO 1960

[Based on ages 23 to 99]

Digit of age	1880	1890	1900	1910	1920	1930	1940	1950 ¹	1960 ²
All digits.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0.....	16.8	15.1	13.2	13.2	12.4	12.3	11.6	11.2	9.9
1.....	6.7	7.4	8.3	7.7	8.0	8.0	8.5	8.9	9.9
2.....	9.4	9.7	9.8	10.2	10.2	10.3	10.4	10.2	9.9
3.....	8.6	9.1	9.3	9.2	9.4	9.4	9.6	9.7	9.8
4.....	8.8	9.0	9.5	9.4	9.4	9.6	9.7	9.7	10.1
5.....	13.4	12.3	11.3	11.5	11.3	11.2	10.7	10.6	10.3
6.....	9.4	9.6	9.4	9.6	9.7	9.6	9.6	9.8	9.9
7.....	8.5	8.9	9.3	9.1	9.4	9.3	9.6	9.7	10.1
8.....	10.2	10.4	10.2	10.7	10.6	10.5	10.3	10.2	9.8
9.....	8.2	8.5	9.7	9.4	9.6	9.8	10.0	10.1	10.3
Index ³	10.4	7.8	4.7	5.6	4.5	4.3	3.0	2.2	0.8

¹ Based on a 20-percent sample.

² Based on a 25-percent sample.

³ The index is one-half the sum of the deviations from 10.0 percent, each taken without regard to sign.

Source: 1880–1950, Robert J. Myers, "Accuracy of Age Reporting in the 1950 United States Census," *Journal of the American Statistical Association*, Vol. 49, No. 268, December 1954, p. 828, table I; 1960, computed by the Bureau of the Census.

Prior to 1960, the greatest preference had always been shown for 0, followed by 5, with lesser heaping on ages ending in 8 and 2. There seemed to be the greatest amount of avoidance of those ages ending in 1, and to a lesser extent, 3, 4, 6, and 7. In 1960, on the other hand, the maximum preference for reporting age had shifted from digit 0 to the digits 9 and 5. The heaping on digit 5 was reduced, however. The greatest underreporting was for digits 3 and 8. The preference for 9 is largely, but not altogether, the result of the heaping on age 59. If the age range from 55 to 64 is omitted, there is slightly greater preference for 4 than for 9 or 5.

This heaping on digits 9 and 4 actually reflects overreporting of years of birth ending in digits 0 and 5. For example, the heaping on age 59 reflects the overreporting of 1900 as the year of

birth. To obtain age from date of birth, the computer subtracted the year and quarter year of birth from the census date. Persons born in the first quarter of 1900 would have been 60 years old on April 1, 1960, and those born in the three remaining quarters would have been 59 on the census date. Thus, about three-fourths of the persons reporting the year of birth in which the last digit is 0, will appear in the age statistics as having an age ending in 9. Furthermore, if the year of birth was guessed at as one ending in 0, and the month was not reported, the allocated age in about three-quarters of the cases would end in 9 rather than 0.

As previously mentioned, the reduction in the degree of age heaping in 1960 may be explained in part by greater accuracy in age reporting as a result of the introduction of year of birth in the questionnaire. The use of self-enumeration by means of the Advance Census Report may also have been conducive to more accurate age reporting. Still another factor may have been the higher nonresponse rate on the age item in 1960 than in the censuses immediately preceding. The nonresponses may well have been characteristically those cases for which age, under previous circumstances, would have been guessed at and hence reported in round numbers. The technique used for allocation of these nonresponses would tend to distribute them more like the reported cases. (See section below on "Assignments for nonresponse or inconsistency.")

In addition to errors resulting from preference for and avoidance of certain terminal digits, the published data for single years of age are also affected by other types of age biases and the net coverage error (i.e., excess of omissions over duplications) of the population in each age. As digit preference is reduced to relatively low levels, these other errors tend to become the more important cause of error in the tabulated data on single years of age. This shift may already have occurred in 1960.

Errors in age groups.—Data in 5-year age groups are not much affected by digit preference, although some residual error resulting from this tendency remains. For example, when age-heaping indices are combined for ages ending in 0 to 4 and 5 to 9 in 1960 to reflect the effect of heaping in age statistics tabulated in the conventional 5-year groups, the resulting figures differ from the expected 50.0 by 0.4. In 1950, this index was about the same—0.3.

It is difficult to arrive at satisfactory estimates of net census undercounts (i.e., net coverage error and net error in classification) in grouped data, and the results obtained by either analytic or survey methods are themselves subject to substantial error. A combination of analytic methods provides some estimates of net undercounts for 1960 by age, sex, and color (see table U). The estimates are fairly reliable for ages under 25 but are rather speculative for the older ages. For ages under 25, the estimates are based on survivors of births. The accuracy of the counts in the older age groups was estimated by more indirect methods, which are subject to greater error.

TABLE U.—ESTIMATES OF NET CENSUS UNDERCOUNTS BY BROAD AGE GROUPS, COLOR, AND SEX: 1960

[Combination of analytical methods. Figures represent percent of expected population. Plus sign indicates a net overcount]

Age	All classes	White		Nonwhite	
		Male	Female	Male	Female
All ages.....	-2.3	-1.1	-1.7	-10.3	-7.1
Under 5 years.....	-2.6	-2.1	-1.4	-7.9	-6.4
5 to 14 years.....	-2.1	-2.3	-1.3	-4.8	-3.8
15 to 24 years.....	-4.0	-3.3	-2.3	-13.9	-9.5
25 to 44 years.....	-2.6	-2.2	-0.7	-16.0	-6.2
45 to 64 years.....	-2.3	-0.2	-1.8	-13.0	-12.8
65 years and over.....	+0.9	+8.1	-4.5	+7.9	-2.0

As stated, the enumerated number of persons under 25 years old in 1960 was compared with the expected survivors of births since 1935. (The Birth Registration Area has comprised the entire United States except Alaska since 1933; records on births are on file for Alaska since 1913.) After the registered births were adjusted for underregistration, allowances were made for mortality and for net immigration. The resulting estimates of net undercount in the Census are affected by errors in the estimates of underregistration of births, in the death statistics by age, and in the statistics of immigration and emigration by age. The results reflect the accuracy of age reporting as well as completeness of coverage. It appears from table V that the relative net undercount of children under 10 was substantially less in the 1960 Census than in the 1950 Census.

TABLE V.—ESTIMATES OF NET UNDERCOUNTS OF CHILDREN UNDER 15 YEARS OF AGE IN THE 1960 AND 1950 CENSUSES, BY AGE, COLOR, AND SEX

[Percent of expected population]

Color and sex	Under 5 years		5 to 9 years		10 to 14 years	
	1960	1950	1960	1950	1960	1950
	(1)	(2)	(3)	(4)	(5)	(6)
All classes.....	2.6	4.7	2.4	3.6	1.9	1.8
White:						
Male.....	2.1	4.3	2.4	3.0	2.2	1.0
Female.....	1.4	3.7	1.5	2.4	1.1	1.1
Nonwhite:						
Male.....	7.9	10.0	5.3	10.6	4.2	6.2
Female.....	6.4	9.3	4.3	8.9	3.1	6.5

Estimates of net undercounts for persons 15 to 24 years old are subject to a somewhat wider margin of error because of greater uncertainties concerning the components of the expected numbers. For 1960, however, these estimates are 3.8 percent for 15 to 19 years and 4.2 for 20 to 24 years.

Entirely different estimates of net census undercount of the population 65 and over than those shown in table V are suggested by a comparison of estimates of the population 65 years and over expected in 1960, based on the 1950 Census data, and counts of the population 65 and over in 1960. The estimate of the population fell short of the census count by about 900,000, or 5.5 percent. A similar discrepancy was also noted in 1950 and 1940. The discrepancy in 1960 must arise from some combination of the following factors: (a) Net overcount of the population aged 65 and over, particularly ages 65 to 74, in 1960 (i.e., exaggeration of age of persons under 65 and double counting of persons 65 and over); (b) net undercount of the population 55 and over, particularly ages 55 to 64, in 1950 (i.e., understatement of age and net underenumeration); (c) underreporting of net immigration for the cohorts under consideration; (d) net overreporting of deaths for these cohorts (i.e., age misreporting). In the interpretation of this discrepancy for earlier censuses, demographers have given greatest weight to factor (a), erroneous reporting of age in the current census. However, an examination of the available evidence, including that on age misreporting as indicated in the reenumerative procedure, tends to discount this factor as a major source of bias. A fuller explanation of the discrepancy may be possible when the complete results of the 1960 Census Evaluation and Research Program are available and have been analyzed.

Measures of the quality of age data may also be obtained by comparing census results with data obtained through intensive reinterviews of a sample of census respondents. For the purpose of this comparison, data obtained from the reinterview survey are regarded as of better quality. Following the 1960 Census, a Content Evaluation Study (CES), similar to the Post Enumeration Survey (PES) of 1950, was conducted, to obtain measures of net response error or response bias with respect to selected

items of information, including age. Net response error represents the difference between corresponding summary statistics in the census and the reenumerative survey, taking sampling error into account. For a number of reasons, including the more intensive interview procedure, CES results are believed to be more accurate than PES results. The figures shown in table W must be interpreted in the light of procedural differences in the two studies.

TABLE W.—ESTIMATED NET DIFFERENCE RATES AND INDICES OF NET SHIFT FOR FIVE-YEAR AGE CLASSES IN THE 1960 AND 1950 CENSUSES OF POPULATION, FOR THE "IDENTICAL POPULATION"

[Rates and indices computed on the basis of figures carried to more digits than shown in table]

Age class	Percent distribution in census		Net difference rate per 100 ¹		Index of net shift per 100		
	1960	1950	1960	1950	1960 ¹	1950 ¹	Difference ²
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
0 to 4.....	11.3	10.7	+0.01	-1.8	+0.06	-1.63	+1.67
5 to 9.....	10.4	8.8	+0.02	+0.08	+0.16	+0.92	+0.76
10 to 14.....	9.4	7.4	+0.05	+0.01	+0.47	+0.11	+0.36
15 to 19.....	7.4	7.1	-0.07	+0.11	-1.00	+1.64	+0.64
20 to 24.....	6.0	7.6	-0.04	+0.02	-0.79	+0.26	+0.63
25 to 29.....	6.1	8.1	+0.08	(3)	+1.53	-0.03	-1.50
30 to 34.....	6.7	7.8	-0.03	+0.04	-0.49	+0.48	+0.01
35 to 39.....	7.0	7.5	+0.12	+0.06	+1.85	+0.78	-1.07
40 to 44.....	6.5	6.8	+0.03	+0.00	+0.44	+1.88	+0.64
45 to 49.....	6.1	6.0	-0.12	(3)	-1.85	-0.07	-1.78
50 to 54.....	5.4	5.5	+0.03	+0.02	+0.59	+0.30	+0.29
55 to 59.....	4.7	4.8	+0.10	-0.16	+2.11	-3.11	+1.00
60 to 64.....	4.0	4.0	-0.10	-0.04	-2.77	-1.04	-2.11
65 to 69.....	3.5	3.3	+0.09	-0.02	+2.63	-0.62	-2.11
70 to 74.....	2.6	2.3	-0.11	(3)	-0.40	+0.12	-0.28
75 and over.....	3.1	2.6	-0.05	-0.08	-1.80	-1.07	-0.73

¹ Minus sign indicates understatement in census; plus sign indicates overstatement.
² Represents the excess of the absolute figure (without regard to sign) in column 5 over the absolute figure (without regard to sign) in column 6. Minus sign indicates higher level of error in 1960 Census than in 1950 Census; plus sign indicates higher level of error in 1950 Census.

³ Less than 0.005.

Table W presents net difference rates and indices of net shift for five-year age groups in the 1960 and 1950 Censuses for the identical population. The net difference rate represents the difference between the number found in a particular age group in the census and the number found in the CES expressed as a percentage of the total population. It corresponds to the amount by which the percentage in a given age group differs from the percentage for that group in the CES. The index of net shift represents the difference between the number found in a particular age group in the census and the number found in the CES expressed as a percentage of the number in the CES in that age group. The net difference rate and the index of net shift may be considered as estimates of the bias of the census data, according to the CES. These figures are based on a person-by-person comparison of responses and include only cases for which responses were obtained in both the census and the evaluation program.

Age Estimates for Selected SMSA's

The 1950 data shown here for SMSA's apply to the area as defined in 1960. Estimates of some of the internal detail of the age distributions were prepared for the relatively few areas for which 1950 data were not available in the detail needed for the 1960 area. The estimates were based on the assumption that the distribution of ages for the area to be estimated was the same as that of the area as defined in 1950.

Median Age

The median is the value which divides the distribution into two equal parts—one-half of the cases falling below this value and one-half of the cases exceeding this value. Because of the heaping described above, the medians shown in tables 155, 156,

157, and 232 were computed on the basis of 5-year groupings rather than from the single years of age.

Youngest and Oldest Age Groups Show Greatest Increases

The rate of increase in the number of persons in both the youngest and oldest age groups of the population between 1950 and 1960 was five times that of the groups in the intermediate ages (20 to 64 years). The increased number of births during and after World War II was responsible for the growth of the younger groups. Factors influencing the increase in the number of elderly persons were the upward trend in the number of births in the late 19th century, declining mortality, and immigration during the early decades of the 20th century.

The number of persons under 20 years old increased by 35 percent and the number 65 and over increased by 32 percent, whereas the increase in the age group 20 to 64 years was only 7 percent. Those 20 to 29 years old were born during the prewar period of low fertility; the number of persons in this age group was actually 9 percent smaller in 1960 than in 1950. As a consequence of these unequal rates of change, the percentage of the population in the ages 20 to 64 years old decreased from 60 percent in 1950 to 52 percent in 1960, whereas the percentage under 20 rose from 34 percent to 39 percent and the percentage 65 and over rose from 8 to 9 percent.

Largely because of the persistence of fairly high levels of fertility throughout the decade, the median age of the population fell slightly, from 30.2 years in 1950 to 29.5 years in 1960. This is the first time that the median age has declined in the United States during an intercensal period; an upward trend in the median had been in evidence for more than a century.

Some notable differences in median age were observed among the various subgroups of the population of the United States in 1960. These differences were the net result of differences in the fertility, mortality, and migration of the population in these subgroups. The median age of the white population (30.3) exceeded that of Negroes (28.5) by nearly 7 years. The median for persons of other nonwhite races was approximately the same as that for the Negro population. On the average, the urban population was slightly older than the population residing in rural areas. The median age in urban areas was 30.3 years; in rural-nonfarm areas, 26.8; and in rural farm, 29.6. In the rural-farm population, however, the median age for white persons was 31.7, whereas that for nonwhite persons was 17.4.

Variations in sex ratios (the number of males per 100 females) according to age between the residence categories are largely the effects of different migration patterns of males and females. In general, in the total population of both color groups, the sex ratio was relatively high in the younger age groups, but declined rather steadily with increasing age. For example, the sex ratio of persons under 5 years old was 103.6, compared with 95.5 for those 40 to 44, and 82.1 for those 65 and over. The highest sex ratio occurred among the rural-farm white population in 1960. The sex ratio of this group was 108.0, compared with only 91.6 for urban nonwhite persons—the lowest of any of the urban or rural groups. There were wide variations between the white and nonwhite population, according to urban or rural residence, but in each case the urban sex ratio was significantly lower than that of either the rural-nonfarm or rural-farm population.

Among the foreign born, the high concentration in the age group 60 and 69 years reflects the heavy immigration of young adults in the period between the end of World War I and the passage of the Immigration Act of 1924. After the quota system was established, the annual number of immigrants became much smaller and, therefore, there are relatively moderate numbers in the younger ages. The persons involved in the really heavy immigration in the first decade of this century had by 1960 reached ages in which mortality is high, and consequently the numbers of

survivors from this earlier immigration are small. The median age for the native white population was 28.5 years, and the corresponding figure for the foreign-born white was 57.7 years.

Fertility Ratio

The "fertility ratio," as the term is used in this report, is the number of children under 5 years old per 1,000 women 15 to 49 years old. (The base includes single women as well as women who have married.) It is a rough index of the natural growth tendencies of various population groups. The ratio, which is computed from age distributions of the population, provides the longest series of fertility statistics available for the United States.

The fertility ratio in the United States increased considerably in the twenty-year period from 1940 to 1960. This reversed a generally downward trend which began over a century prior to 1940. In 1940, the fertility ratio, reflecting children born during the last half of the 1930's, was so low that the population would ultimately have declined if the ratio had continued at that level. By contrast, if the fertility ratio continues at its 1960 level, the population would ultimately increase by about two-thirds in each generation. In 1960 a fertility ratio of about 291 would have been adequate for replacement of the population. The actual ratio in 1960 was 488.

SEX

Females outnumbered males in 1960 as they did in 1950 but to a slightly greater degree, thus continuing the long-time downward trend in the sex ratio (the number of males per 100 females), which fell below 100 for the first time in 1950. In 1960, the sex ratio in the United States was 97 males for every 100 females in the population, whereas in 1950 it was nearly 99. One factor in the decline has been the higher death rate of males than of females. In the periods of heavy immigration before 1924, males outnumbered females among the immigrants. The diminishing number of survivors among these older immigrants has been another factor contributing to the decline of the sex ratio. Moreover, in the last two decades, the fact that many American citizens were abroad, especially in the Armed Forces, has reduced the sex ratio of the resident population of the United States. Even if Americans overseas were included, however, the sex ratio would be increased only from 97.0 to 97.6. For persons under 1 year of age, males outnumbered females by a ratio of 103 to 100. Because of the higher mortality rates of males than females, the sex ratio declines progressively at older ages. The census figures show that the sex ratio approached 100 by age 18, declined thereafter to about 96, where it remained to about age 60, and then dropped rapidly.

The excess of females prevailed in all the regions except the West where, because of the heavy migration of men to that region during past decades, males outnumbered females by approximately 101 to 100. The preponderance of females was greatest among nonwhites and in urban areas. The nonwhite sex ratio was 95 and that of the white population was 97; the urban sex ratio of 94 contrasted sharply with that for rural areas, where men outnumbered women by a ratio of 104 to 100.

RACE AND COLOR

Definitions

The data on race were derived from answers to the question on the Advance Census Report shown on the following page.

Race.—The concept of race, as it has been used by the Bureau of the Census, is derived from that which is commonly accepted by the general public. It does not reflect clear-cut definitions of biological stock, and several categories obviously refer to national origin. The use of self-enumeration in the 1960 Census may have affected the data on race as compared with those of earlier censuses. Whereas formerly the classification was obtained in most cases by the enumerator's observation, in 1960 it was possible

persons who had moved from the State of their birth and were still living in another State on the date of the census. The statistics therefore afford no indication of the amount of migration within a given State from rural to urban communities or from one locality to another; nor do they take any account of intermediate moves between the time of a person's birth and the time of the census.

The statistics thus do not indicate the total number of persons who have moved from the State in which they were born to other States, or to any specific State, during any given period of time. Some of those who had gone from one State to another have since died, others have returned to the State in which they were born, and others have gone to still other States, or places outside the United States.

Foreign born.—Foreign-born persons were asked to report their country of birth according to international boundaries as recognized by the United States on April 1, 1960. Similarly, the list of countries used in editing and coding the data on country of birth of the foreign born was composed of those countries officially recognized by the United States at the time of the census. There may have been considerable deviation from the rules specified in the instructions, in view of numerous changes in boundaries that have occurred. Moreover, many foreign-born persons are likely to report their country of birth in terms of boundaries that existed at the time of their birth or emigration, or in accordance with their own national preference; such variations in reporting may have been intentional or the result of ignorance of the boundaries recognized by the United States.

Parentage and Birthplace of Parents

Information on birthplace of parents is used to classify the native population of the United States into two categories: Native of native parentage and native of foreign or mixed parentage. The category "native of native parents" comprises native persons, both of whose parents are also natives of the United States. The category "native of foreign or mixed parentage" comprises native persons, one or both of whose parents are foreign born. The rules for determining the nativity and country of birth of parents are substantially the same as those used for the persons enumerated. Where the data on parents' birthplace were incomplete, the editing procedure made use of other related information on the census schedule in order to determine an acceptable entry where possible.

Foreign Stock

The foreign-born population is combined with the native population of foreign or mixed parentage in a single category termed "foreign stock." This category comprises all first- and second-generation Americans. Third and subsequent generations in the United States are described as "native of native parentage."

In this report, persons of foreign stock are classified according to their country of origin with separate distributions shown for the foreign born and the native of foreign or mixed parentage. In this classification, native persons of foreign parentage whose parents were born in different countries are classified according to the country of birth of the father.

Trends in Place of Origin

The proportion of the native population living in a State other than the State of birth was higher in 1960 than at any other time since data on this subject were first collected in the 1850 Census. In 1960, 28 out of every 100 persons in the native population were residing in a State different from the State in which they had been born. In 1950, the corresponding proportion was 25 out of every 100.

As in the last three censuses, a slightly larger proportion of nonwhite than of white persons in the native population was living

in a State other than the State of birth. The 1960 proportion for the white population (26 percent), however, was a little higher than that in 1950 (25 percent), whereas among nonwhites the percentage declined slightly (from 29 to 28 percent).

As might have been expected, the proportion of native persons born in and residing in the same State declines with age. Among children under 5 years old, 88 percent were in this category, in contrast to 56 percent of those 85 and older. As a result, the median age of those still living in the State of birth was 22.4 years as against 36.9 for those who were living in a State other than their State of birth.

In most place-of-birth classifications, the nonwhite population was, on the average, younger than the white population. The median age of the total nonwhite population, for example, was 23.5 years in contrast to 30.3 for the total white population. Nonwhites living in their State of birth had a median age of 15.9 years, or 7.7 years below the comparable figure for whites. The difference in the median ages of the white and nonwhite population born outside their State of residence, however, was very small, 36.9 vs. 36.7 years. Only among persons born in the South and living outside their State of residence and among those born in outlying areas of the United States were the medians for nonwhite persons higher than those for white persons.

As might be expected of a region which has had large gains through net migration, the West led the regions in the proportion of the native population living outside the State of birth. One out of every two persons in the native population living in the West in 1960 was in a State other than his State of birth. In the other three regions, however, about three out of every four native persons were living in their State of birth. Four out of every five persons in eight States in the South and in Pennsylvania were living in their State of birth, whereas only one out of every four residents of Nevada had been born in the State. In addition to Nevada, the District of Columbia, Florida, and seven States in the West had fewer than half of their residents born within the State.

The largest proportion of persons living outside their State of birth was found in urban areas—29 percent. Among rural-farm residents only 12 percent were in this category, and among rural-nonfarm residents, 22 percent.

Foreign-Born Population Declines

The foreign-born population of the United States from nearly all countries of origin declined during the decade from 1950 to 1960. Only a few groups, such as persons from France, the Netherlands, Yugoslavia, Mexico, Asia, and a few others, were augmented enough by immigration to offset the effects of mortality. Immigration from most countries has been comparatively small for about four decades. As the foreign-born groups have grown older, the number of deaths, of course, has tended to exceed net immigration.

The decreases in many of the foreign-born groups were very large. The number of persons from Ireland (Eire), Norway, Sweden, Austria, Denmark, U.S.S.R., and Finland all decreased more than 20 percent, and several other groups also experienced substantial losses during the 1950's.

The largest percentage increase (68 percent) in any country-of-birth group was among persons from American countries other than Canada and Mexico, followed by persons from Asia (59 percent). The foreign born from Asia also showed the largest numerical increase of any group.

Since the beginning of this century, nativity and parentage data have been available for the total population from only the 1900 and 1960 Censuses; for intervening censuses, tabulations were made for only the white population. However, compara-

tively few nonwhite foreign-born persons have entered the country since the latter part of the nineteenth century.

Since the beginning of the twentieth century, the native white population has comprised an increasingly large proportion of the population of the United States. Each census, except that of 1910, has indicated this trend. In 1900, approximately 85 percent of the white population was native, as compared with about 94 percent in 1960. During the same period, the proportion native increased from 86 percent to 95 percent of the total population. Conversely, the proportion foreign born declined since 1900, from about 14 percent to less than 6 percent of the white population. A slight decline in the percentage native of the white population between 1900 and 1910 was the result of an exceptionally large European immigration during the decade.

Reflecting the decline in the volume of immigration since the outbreak of World War I, the average age of the foreign-born population was much higher than that of the native population. The foreign-born had a median age of 57.2 years, or more than twice that of the native population, whose median age was 27.8. The foreign born were relatively more numerous in the white than in the nonwhite population—5.9 vs. 2.2 percent.

Among the regions, the South continued to have the highest percentage native and the Northeast, the lowest. In the South, 98.2 percent of the population was native, whereas in the Northeast, the percentage was 89.8. In the East South Central States, all but one-half of one percent of the population was native.

Among the States, New York had the lowest percent native in its population—86.4. In four additional States—Connecticut, Hawaii, Massachusetts, and New Jersey—the percentage was below 90. At the other extreme, in 10 States, all in the South, native persons constituted 99 percent or more of the population.

As the foreign-born population has declined in comparison with the total, the proportion native white of foreign or mixed parentage has also declined. The latter group, comprising second-generation white Americans, included more than 23 percent of the white population in 1900, but only 15 percent in 1960. The proportion of the white population of foreign or mixed parentage reached its peak after the foreign-born white population did, of course, and the proportion in the former category has been declining more slowly.

The nativity and parentage of the population varies substantially among the several regions. Historically, the Northeast has been the recipient of many large European immigrations; and in 1960 the foreign stock comprised over 34 percent of the total population of that region. About 10 percent of the population was foreign born, and over 23 percent was native of foreign or mixed parentage. In contrast, the foreign stock in the South included only 6 percent of the total population.

A substantial part, 24 percent, of the nonwhite population of the West was of foreign stock in 1960. In that region 10 percent of the nonwhite population was foreign born, and 15 percent was native of foreign or mixed parentage. The large number of persons of foreign nonwhite stock residing in the West may be attributed mainly to the immigration of persons from Asian countries, especially China and Japan, which began about the middle of the last century. The population of the Northeast also included a substantial number of persons of foreign nonwhite stock. In the Northeast, however, the number of foreign-born nonwhite persons was larger than the number of nonwhite persons of foreign or mixed parentage, indicating the fairly recent arrival of foreign-born nonwhite persons in that region. Neither the North Central nor the South had a large foreign-born nonwhite population.

It is of some interest that the foreign white stock has increased in proportion to the total white population in only one of the four regions, the South. In all other regions the foreign white

stock as a percentage of the total white population declined during the decade 1950 to 1960. In both the South and the West, the foreign white stock experienced very large numerical increases. In the South, the area of largest growth, the foreign-born white population increased 24 percent, and the native white population of foreign or mixed parentage grew 26 percent between 1950 and 1960. These increases probably result in considerable part from the movement of persons of foreign stock from the northern half of the Nation to the South, especially to Florida, and from Mexico, especially to Texas. Smaller additions were made by immigration from other American countries and the West Indies.

Historically, immigrants to the United States have come from a variety of countries, and the numbers coming from the several countries have varied greatly over the years. Since the early part of the twentieth century, immigration has been curtailed as the result of various legal restrictions and international disasters such as the two World Wars and the depression of the 1930's. As indicated above, the foreign stock of the United States has experienced a gradual decline in numbers, and it is evident that the number of persons of foreign stock from almost all countries of origin has decreased.

Data for 1960 and 1950 are not strictly comparable because the 1950 data do not include nonwhite persons. Despite this inconsistency it is apparent that the foreign stock from a few countries has increased. The number of persons of foreign stock from the United Kingdom, Mexico, Canada, Yugoslavia, Rumania, The Netherlands, and a few other countries has shown varying amounts of growth. The largest numerical increase, almost 400,000, was among persons of Mexican origin, followed by persons of Canadian origin.

Besides the inclusion of the foreign nonwhite stock, there are a number of other inconsistencies in country-of-origin data for 1960 and 1950. For example, it is apparent that there was a slight understatement of the number of persons of foreign white stock from Yugoslavia in 1950, which resulted from the reclassification of persons reporting Austria-Hungary or Austro-Hungarian Empire as their birthplace. (The allocation scheme for persons reporting Austria-Hungary in 1950 tended to overstate the number of persons from Austria and Hungary at the expense of Czechoslovakia and Yugoslavia.) In 1960, relatively few persons reported Austria-Hungary as their birthplace, probably because many of the persons born in the old Empire had died and because of identification of younger persons with the succession states into which the Empire was divided. A part of the apparent increase in the foreign stock from Yugoslavia may thus be attributed to better coverage of these people in 1960 than in 1950.

Inconsistencies are also evident in the data for Northern Ireland. These data are believed to be more nearly correct for 1960. The 1950 data are grossly deficient, apparently because no instruction was printed on the questionnaire that Northern Ireland should be distinguished from Eire. Largely because of the omitted instruction, there was an 85-percent decrease from 1940 to 1950 and a 342-percent increase from 1950 to 1960 in the number of persons born in Northern Ireland. The total foreign stock from Northern Ireland increased 463 percent during the decade. Undoubtedly, the 1950 procedure accounts in part for the apparent precipitate decline from 1950 to 1960 in the foreign stock from Ireland, and obscures an actual decrease in the foreign stock from the total United Kingdom.

Data on the foreign stock from Portugal for 1960 presented in this report are not altogether comparable with those shown for 1950. Data for Portugal for both 1960 and 1940 include persons reporting the Azores as their country of origin, whereas those for 1950 include only persons reporting Portugal. Moreover, data presented in this report for Asia for 1960 are obviously not comparable with those for 1950 and 1940, since the 1960 data include the foreign nonwhite stock.

MOTHER TONGUE OF THE FOREIGN BORN

Definitions

The data on mother tongue of the foreign born were derived from answers to the following question on the Household Questionnaire:

P9. If this person was born outside the U.S.—
What language was spoken in his home before he came to the United States?

In the 1960 Census, mother tongue is defined as the principal language spoken in the person's home before he came to the United States. If a person reported more than one language, the code assigned was the mother tongue reported by the largest number of immigrants from his native country in the 1940 Census. Data are shown in chapter C for all the more common European languages, as well as Chinese, Japanese, and Arabic.

Data on mother tongue were collected in the interest of determining nationality or ethnic or linguistic origin of the foreign born, especially of those persons born in certain Eastern European areas which have experienced changes in national sovereignty. The data on mother tongue of the foreign born do not necessarily reflect a person's current language skills or an inability to speak English. The vast majority of persons reporting a mother tongue other than English have learned to speak English since entering this country. It is likely, furthermore, that many of these persons have forgotten the mother tongue they reported, and some have acquired skills in other foreign languages.

Nonresponse to the question on mother tongue was relatively frequent in some areas. Failure to report a language may have resulted from a number of causes. For example, in some situations, the respondent and the enumerator may have thought the mother tongue was obvious from the country of birth. Furthermore, since the mother-tongue question was asked only of foreign-born persons, it was asked relatively rarely in some areas and may have been overlooked by the enumerator in direct interview situations. It is apparent that in areas where there are large concentrations of foreign-born persons, nonresponse rates are substantially lower than in areas where there are relatively few such persons. No assignments to replace nonresponses were made for missing entries on mother tongue for this report.

Comparability

A question on mother tongue was asked in the Censuses of 1910, 1920, 1930, and 1940. The comparability of these data is limited to some extent by changes in the wording of the question, in the categories of the population to which the question was addressed, and in the detail that was published. In 1940, the question asked for the language spoken in earliest childhood and included a caution to enumerators that, when obtaining this information from foreign-born persons, they should record the language spoken in the home before the person came to the United States. In 1960, if both English and another mother tongue were reported, preference was always given to the non-English language. This procedure may reduce somewhat the proportion of the foreign-born population classified as having English as their mother tongue.

In the 1910 and 1920 Censuses, statistics on mother tongue were published for the foreign white stock; in 1930, they were published for the foreign-born white population; and in 1940 they were published for the native white of native parentage as well as the foreign white stock. In the present census, they are shown for the foreign-born population of all races combined.

Distribution by Mother Tongue Has Changed Since 1940

Between 1940 and 1960, the number of persons in all but five of the major mother-tongue classes decreased. Losses among the major language groups ranged from 8 percent for French to almost 58 percent for Slovenian. The largest numerical loss was sustained by foreign-born persons of English mother tongue, followed by persons of Yiddish, Italian, and German mother tongues. Of the five categories that increased between 1940 and 1960, Spanish had by far the largest numerical gain, but Ukrainian had the largest percentage increase.

YEAR MOVED INTO PRESENT HOUSE

The data on year moved into present residence were derived from the answers to the following question on the Household Questionnaire:

P12. When did this person move into this house (or apartment)?
(Check date of last move)

In 1959 or 1960... <input type="checkbox"/>	Jan. 1954 to March 1955... <input type="checkbox"/>
In 1958... <input type="checkbox"/>	1950 to 1953... <input type="checkbox"/>
In 1957... <input type="checkbox"/>	1940 to 1949... <input type="checkbox"/>
April 1955 to Dec. 1956... <input type="checkbox"/>	1939 or earlier... <input type="checkbox"/>
	Always lived here... <input type="checkbox"/>

Respondents were asked to answer in terms of the most recent move they had made. The intent was to obtain the year when the person established his usual residence in the housing unit. Thus, a person who had moved back into the same house (or apartment) in which he had previously lived was asked to give the date at which he began the present occupancy. If a person had moved from one apartment to another in the same building, he was expected to give the year when he moved into the present apartment. In reports of the 1960 Census, the category "always lived here" includes persons who reported that their residence on April 1, 1960, was the same as their residence at birth and who had never had any other place of residence. In reports of the 1960 Census of Housing, however, "year moved into present house" is shown for heads of households, but the category "always lived here" is not used; heads of households who had always lived in the present house were distributed among the time periods on the basis of the head's age.

Duration of Present Residence Varies Widely

One-fourth of all persons had moved into the house in which they were living at the time of the census during the preceding year and a quarter, that is, between January 1959 and April 1960. One-half had moved into their present house during the nine years from January 1950 through December 1958. The remaining fourth had either moved in before 1950 or had always lived in the same house; this group included many children born after January 1, 1950.

Among farm residents, the proportion who had moved after December 1958 into the house in which they were living at the time of the census was almost twice that for nonfarm residents. On the other hand, the proportion of persons living on farms who had always lived in the same house (15 percent) was double that of rural-nonfarm residents and three times as large as that of urban residents.

There were marked differences among the regions in the year of move into the present house. In the West, for example, one out of every three residents had moved in the 15-month period preceding the census, in contrast to one out of every five of the

residents of the Northeast. In the Northeast, on the other hand, one out of every four had moved in before 1950 as against one out of every seven in the West.

RESIDENCE IN 1955

Definitions

The data on residence in 1955 were derived from the answers to the following questions on the Household Questionnaire:

P13. Did he live in this house on April 1, 1955?
(Answer 1, 2, or 3)

1. Born April 1955 or later ☐

OR

2. Yes, this house ☐

OR

3. No, different house ☐

Where did he live on April 1, 1955?

a. City or town ☐

b. If city or town—Did he live inside the city limits? --- { Yes ... ☐
No ... ☐

c. County ☐
AND
State, foreign
country, U.S.
possession, etc. ☐

Residence on April 1, 1955, is the usual place of residence five years prior to enumeration. Residence in 1955 was used in conjunction with residence in 1960 to determine the extent of mobility of the population.

The category "same house as in 1960" includes all persons 5 years old and over who were reported as living in the same house on the date of enumeration in 1960 and five years prior to enumeration. Included in the group are persons who had never moved during the five years as well as those who had moved but by 1960 had returned to their 1955 residence. Persons who had changed residence from 1955 to 1960 were classified according to type of move.

The category "different house in the U.S." includes persons who, on April 1, 1955, lived in the United States in a different house from the one they occupied on April 1, 1960, and for whom sufficient information concerning the 1955 residence was collected. These persons were subdivided into three groups according to their 1955 residence, viz., "different house, same county," "different county, same State," and "different State." The last category was further subdivided by region of 1955 residence.

The category "abroad" includes those with residence in a foreign country or an outlying area of the United States in 1955. (In the coding of this item, persons who lived in Alaska or Hawaii in 1955 but in other States in 1960 were classified as living in a different State in 1955.)

Persons 5 years old and over who had indicated they had moved into their present residence after April 1, 1955, but, for whom, or for members of their families, sufficiently complete and consistent information regarding residence on April 1, 1955, was not collected, are included in the group "moved, place of residence in 1955 not reported." (Missing information was supplied if data were available for other members of the family.) Also included

in the category "moved, place of residence in 1955 not reported" are persons who gave no indication as to their movement since April 1, 1955, but who, on the basis of the final edited entry for year moved (for which all nonresponses were replaced by assigned entries), were classified as having moved into their present house since April 1, 1955.

The number of persons who were living in different houses in 1960 and 1955 is somewhat less than the total number of moves during the five years. Some persons in the same house at the two dates had moved during the five-year period but by the time of enumeration had returned to their 1955 residence. Other persons made two or more moves. Persons in a different house in the same county may actually have moved between counties during the five-year period but by 1960 had returned to the same county of residence as that in 1955. Finally, some movers during the five-year period had died and some had gone abroad.

Comparability

Similar questions on mobility were asked in the 1950 and 1940 Censuses. However, the questions in the 1950 Census, as well as in annual supplements to the Current Population Survey, applied to residence one year earlier rather than five years earlier. In the 1950 reports, migrants reporting the State but not the county of residence in 1949 appear in the known categories of migration status and State of origin, whereas in this report such persons were all assigned to the category "moved, place of residence in 1955 not reported." This partial nonresponse group comprised 411,590 migrants in 1950; the corresponding figure for 1960 is not yet known.

Although the questions in the 1940 Census covered a five-year period, comparability with that census is reduced somewhat because of different definitions and categories of tabulation. In 1940, the population was classified in terms of four major categories: Migrants, nonmigrants, immigrants, and migration status not reported. The first group, "migrants," included those persons who in 1935 lived in a county (or quasi-county) different from the one in which they were living in 1940. A quasi-county was defined as a city which had a population of 100,000 or more in 1930 or the balance of the county within which such a city was located. The second group, "non-migrants," comprised those persons living in the same house in 1935 as in 1940 as well as persons living in a different house in the same county or quasi-county. The group classified as "immigrant" in 1940 is comparable to the group classified in 1960 as "abroad." The 1940 classification, "migration status not reported," included persons for whom information was not reported in addition to those for whom the information supplied was not sufficient.

Quality of the Data

The Content Evaluation Study, described in the section above on "Quality of the statistics" provided some information on the quality of the mobility statistics. The results of the study indicate that the tendency is for the Census to overestimate the number of nonmovers and intracounty movers and to underestimate migrants and movers from abroad. Additional information on the quality of the mobility statistics will appear in reports of the Evaluation and Research Program series.

One in Two Had Same Residence in 1960 as in 1955

Of the 159.0 million persons 5 years old and over in the United States in 1960, one-half were living in the same house as in 1955, three out of every ten were living in a different house in the same county, and one out of every six in a different county. Those who moved across county boundaries were nearly equally divided between those who were living in the same State as in 1955 and those who were living in a different State.

A slightly higher percentage of white than of nonwhite persons 5 years old and over were living in the same house as five years earlier (50 and 48 percent, respectively). Of those who had moved, white persons tended to move greater distances. About 18 percent of the white persons 5 years old and over had moved across county lines, and 9 percent across State lines, in contrast with 11 and 6 percent, respectively, of the nonwhite persons of the same age.

The largest proportion of movers in the white population (50 percent) was found among rural-nonfarm residents, whereas the highest proportion in the nonwhite population was among those currently living in urban areas. These statistics reflect the movement from farms, shifts of white population from cities to surrounding areas, and the replacement of white residents by nonwhite residents in the cities.

Mobility Rates Vary With Age

Almost three-quarters (73 percent) of the population 20 to 29 years old in April 1960 had moved at least once since April 1955, according to figures compiled from the 1960 Census. As age increased beyond 30 years, this percentage of movers decreased to a low of about 27 percent in the age group 75 to 79 years, and then increased slightly among the very old. Among children 5 to 9 years old, the percentage of movers was about 55, similar to the level observed for persons in their 30's; and among children 10 to 14 years old about 46, about the level observed for persons in their late 30's and early 40's. At ages 15 to 19 years, this mobility rate approached that of the total population, which was 47 percent.

The high rate of mobility among persons in their 20's is to a considerable extent a reflection of the fact, which is sometimes overlooked in the interpretation of migration data, that normally as children grow up they leave their parental home, marry, and establish homes of their own. The decline in mobility at the succeeding ages indicates, generally speaking, an increasing social and economic stability in which a stake in a particular job and strengthening community ties militate against further mobility. There are, of course, exceptions; not all children leave home when they grow up, some persons never achieve a stable relationship in a given community, and some occupations carry with them a high degree of mobility. For the great majority of persons, however, the general pattern applies. Because these mobility rates refer to a five-year period, movers were about 2½ years younger, on the average, at the time of their move than they were in 1960.

At the extreme upper end of the age distribution, it appears that the breakup of families incident to the death of a spouse and the increase in serious disability make long-established living arrangements impractical and thus lead to mobility. The mobility rates of children, of course, reflect those of their parents, and thus their mobility rates tend to decline until they reach the age levels at which they begin to leave home.

About 30 percent of the population 5 years old and over had changed residence within counties between 1955 and 1960, and 17 percent between counties. The intracounty mobility rate is an approximate measure of changes of residence within the same community not necessarily accompanied by a change in employment and thus would cover moves from one apartment to another, from one section of a city to another, or, in many cases, the much heralded "flight to the suburbs." Moves between counties, defined in the census as migration, involve, on the average, greater distances, and the migration rate may thus be taken as an approximate measure of moves involving a change of community and employment. These characterizations are of necessity approximate, since obviously some moves within counties involve a change of residence and employment, and some moves between counties may be purely local in character.

Both the intracounty mobility rate and the migration rate show peaks in the age range 20 to 29 years, decreases to lows in the age range 70 to 79 years, and slight increases in the 80's. There are, however, minor differences. The peak for local mobility falls in the age group 25 to 29 years, whereas that for migration falls in the age group 20 to 24 years. Likewise, the low point for the local mobility rate falls in the age group 70 to 74 years, whereas that for the migration rate falls in the age group 75 to 79 years. There is somewhat less variability by age in the local mobility rate than in the migration rate. The peak intracounty mobility rate at 25 to 29 years, 41 percent, is slightly more than twice the lowest rate, 19 percent. The migration rate at ages 20 to 24, 35 percent, is more than 4 times as great as the lowest rate at ages 75 to 79, 8 percent.

In terms of total mobility, there is little sex difference—the rate for men was 48, and that for women 47. The local mobility rate for women was a fraction of a percentage point above the corresponding rate for men, and the migration rate for men exceeded that for women by 1.2 percentage points. There are, however, some appreciable differences by age. In the age range 15 to 29 years, the local mobility rates for women are substantially higher than those for men, and again in the age range 70 years old and over the rates for women were slightly higher. In contrast, the migration rate was slightly higher for men than for women at each 5-year interval to age 70. Thereafter the rates for women were slightly higher than those for men. The higher intracounty mobility rates for women than for men until ages 30 to 34 suggest that the difference in average age at marriage is a factor. Marriage is also a somewhat more important factor in the mobility of women than in the mobility of men. The generally higher migration rates for men suggest that they tend to move longer distances than women. Among the elderly, the greater incidence of local mobility and migration of women may reflect their tendency to survive their husbands and the need to make a change of residence after they are widowed.

The fact that mobility is so characteristic of young adults is further emphasized in a comparison of the median ages of the various mobility categories with the median age for the general population 5 years old and over. The median age for the total population 5 years old and over was 34 years. The people who lived in the same house in 1955 and 1960 had a median age of 41 years. People who lived in a different house in the same county in the two years had a median age of 30 years; those who migrated elsewhere in the same State, 27 years; and those who migrated to a different State, 27 years. These data suggest an inverse relation between age and distance moved. This inverse relationship is characteristic for both men and women with the exception that women moving to a different State have the same median age as intrastate migrants. The same pattern is likewise apparent in the nonwhite population.

Persons 5 years old and over now living in the West have a history of higher mobility than those in other regions. Only 40 percent of the people 5 years old and over were living in the same house in 1955 and 1960. Only Florida and the District of Columbia, outside the West, had as high a percentage of movers as the average percentage for the West. At the other extreme, in terms of stability, in the Northeast 57 percent were living in the same house in 1955 and 1960. Only North Dakota, outside the Northeast, had a higher percentage of nonmovers in the population 5 years old and over.

In the West, 55 percent of all moves were intracounty moves. This compares with a national average of 63 percent and 67 percent for the Northeastern population, which is not only least mobile but also most likely to make local moves. The data indicate that the higher the mobility the lower the relative importance of intracounty (local) moves. Local mobility rates have less variability among regions than do migration rates. Interregional

variations in total mobility, therefore, are primarily functions of intercounty exchanges and reflect the continuing westward movement of population.

SCHOOL ENROLLMENT AND YEAR OF SCHOOL IN WHICH ENROLLED

Definitions

The data on school enrollment were derived from answers to the following questions on the Household Questionnaire:

P16. Has he attended regular school or college at any time since February 1, 1960?

If he has attended only nursery school, business or trade school, or adult education classes, check "No"

Yes... ☐ No... ☐

P17. Is it a public school or a private school?

Public school... ☐

Private or parochial school... ☐

The answers to these questions were recorded for persons 5 to 34 years of age. The data on year of school in which enrolled were obtained by tabulating, for those who were enrolled, the responses to the question on highest grade attended (see section below on "Years of school completed").

Schooling included.—Persons were included as enrolled in school if they reported attending or being enrolled in a "regular" school or college at any time between February 1, 1960, and the time of enumeration. According to the census definition, "regular" schooling refers to formal education obtained in public and private (denominational or nondenominational) kindergartens, graded schools, colleges, universities, or professional schools, whether day or night school, and whether attendance was full time or part time. That is, "regular" schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional degree. Schooling that was not obtained in a regular school and schooling from a tutor or through correspondence courses were counted only if the credits obtained were regarded as transferable to a school in the regular school system. Persons who had been enrolled in a regular school since February 1, 1960, but who had not actually attended, for example, because of illness, were counted as enrolled in school.

Schooling excluded.—Persons were excluded from the enrollment figures if the only schools they had been attending at any time since February 1, 1960, were not "regular" (unless courses taken at such schools could have been counted for credit at a regular school). Schooling which is generally regarded as not "regular" includes that which is given in nursery schools, in specialized vocational, trade, or business schools, in on-the-job training, and through correspondence courses.

Level and year of school in which enrolled.—Persons who were enrolled in school were classified according to the level and year of school in which they were enrolled. The levels which have been separately identified in this report are kindergarten, elementary school, high school, and college. In most of the tables data are shown for specific years within each level. Elementary school, as defined here, includes grades 1 to 8 and high school includes grades 9 to 12. If a person was attending a junior high school, the equivalent in terms of 8 years of elementary school and 4 years of high school was obtained. (See the section on "Years of school completed" for a discussion of variations in school organization.) The term "college" includes junior or com-

munity colleges, regular 4-year colleges, and graduate or professional schools.

Public or private school.—Persons who were enrolled in school were also classified as attending a public or private school. In general, a "public" school is defined as any school which is controlled and supported primarily by a local, State, or federal governmental agency, whereas "private" schools are defined as schools which are controlled and supported mainly by a religious organization or by private persons or organizations.

Enumeration of college students.—College students were enumerated in 1950 and 1960 where they lived while attending college, whereas in most earlier censuses they generally were enumerated at their parental home. A study conducted in the Current Population Survey showed, however, that residence while attending college is the same under both the current and the previous procedures for roughly one-half of the college students; furthermore, only part of the one-half who would be classified at different residences would be counted in different counties and still fewer in different States.

Comparability

Earlier census data.—The corresponding question on schooling in the 1910, 1920, and 1930 Censuses generally applied to a somewhat longer period, the period since the preceding September. The 1920 Census was taken in January, however, whereas the 1910 and later censuses were taken in April. In censuses prior to 1940, the question was not restricted as to the kind of school the person was attending. In 1940, the question referred to the period since the preceding March 1. There were indications, following that census, that in some areas the schools closed early (i.e., before March 1) for such reasons as lack of funds, flood conditions, or crop sowing. For such areas, the enrollment rates would, therefore, have been relatively low. In order to insure more complete comparability among areas, it was considered advisable in 1950 to change the reference period to that between February 1 (the usual date for beginning the second semester) and the time of enumeration. The corresponding reference period was used in 1960.

In 1950, for the first time in a decennial census, kindergarten enrollment was separately identified, but the number of children enrolled in kindergarten was not included with the 1950 statistics on enrollment in regular schools. In 1960, kindergarten enrollment was separately identified and included with the regular enrollment figures. In this report, the statistics for 1950 have been adjusted to include enrollment in kindergarten with the regular enrollment figures.

The age range for which enrollment data have been obtained has varied for the several censuses. Information on enrollment was recorded for persons of all ages in 1910 through 1940, for persons 5 to 29 years old in 1950, and for those 5 to 34 years old in 1960. Most of the published enrollment figures relate however, to ages 6 to 20 in 1910, 7 to 20 in 1920, 5 to 20 in 1930, 5 to 24 in 1940, 5 to 29 in 1950, and 5 to 34 in 1960. The enrollment statistics at the older ages reported in 1930 and 1940 were regarded as of poor quality and as relating mostly to enrollment in other than regular schools. The extended age coverage for the published enrollment data in the recent censuses reflects the increasing number of persons in their late 20's and early 30's who are attending regular colleges and universities.

In 1960, as in prior censuses, persons for whom there was no report on school enrollment were allocated as either enrolled or not enrolled. In both 1940 and 1950, the editing rules were determined largely on the basis of information on ages of compulsory attendance as compiled by the United States Office of Education. Additional information used in editing included other items on the schedule and results of Current Population Surveys showing the percent enrolled for various age groups.

In general, in 1940 and 1950, persons 5 through 17 years of age not reporting on school enrollment were treated as enrolled, whereas those over 17 years old were considered not enrolled. The general scheme used in eliminating nonresponses in 1960 is discussed in the section below on "Editing of unacceptable data."

Current Population Survey.—Data on school and college enrollment from the 1960 Census taken in April may be compared with data from the Current Population Survey taken in October 1959, the beginning of the same school year. Three general findings emerge from this comparison: (1) Totals of enrollment below the college level from the two sources were quite similar (within one percent of each other). (2) College enrollment according to the 1960 Census was about 12 percent lower than college enrollment according to the Current Population Survey. An inquiry made of a sample of colleges and universities showed, however, that nearly all of the difference probably could be accounted for by attrition in college enrollment between the fall and the spring, rather than from undercounting of college students in the census. (3) Enrollment by age groups, particularly at ages at which students change school levels, differed somewhat between the two sources. Most of this difference could be explained by shifts in age distribution between the fall and spring; for example, the enrollment rate for persons 18 and 19 years old was higher in the census because many high school seniors who were 17 or 18 years old in October became 18 or 19 in April, before they completed high school.

Data from other sources.—Data on school enrollment are also collected and published by other Federal, State, and local governmental agencies. This information is generally obtained from reports of school systems and institutions of higher learning, and from other surveys and censuses. These data are only roughly comparable with data collected by the Bureau of the Census by household canvassing, however, because of differences in definitions, subject matter covered, time references, and enumeration methods.

Quality of the Data

About 8 percent of the population 5 to 34 years old did not report on school enrollment in the 1960 Census. Nonresponse rates were highest at the older school and college ages, presumably because many persons who had already left school did not think it was necessary for them to answer the question. Of those reported as enrolled, 3 percent did not report the year in which the person was enrolled and about 6 percent did not respond to the question on whether the enrollee was in a public or private school or college. Nonresponse rates on enrollment items were higher for nonwhites than whites; they were generally higher in urban than in rural areas although these differences were small.

The results of the Content Evaluation Study suggest that there was little misreporting of school enrollment and of the type of school (public or private) in which persons were enrolled. In terms of year in which enrolled, about 2.0 percent of enrolled persons reported a higher grade in the census than in the evaluation study while 0.6 percent reported a lower grade in the census; the net result was that 1.4 percent reported a higher grade in the census.

Trend in School Enrollment Continues Upward

There were nearly 44 million persons 5 to 34 years old enrolled in regular public and private schools and colleges in the United States at the time of the 1960 Census. Of these, about 2 million were in kindergarten, 29 million were in elementary school (grades 1 to 8), nearly 10 million were in high school (grades 9 to 12), and about 3 million were in colleges and universities.

These figures refer to enrollment as of the spring of the year and are generally slightly lower than those as of the previous fall in the same school year. Approximately 86 percent of the elementary school pupils and 89 percent of the high school students were enrolled in public schools.

Enrollment rates increased sharply over the half century from 1910 to 1960 in all school-age groups. About two out of three children 5 and 6 years old were in kindergarten or elementary school in 1960 as compared with one out of three in 1910, most of the increase taking place since 1940. At ages 7 to 15, which are covered by compulsory school laws in nearly all States, 95 out of 100 children were enrolled in school in 1960, the corresponding proportion in 1910 having been 80 out of 100. Increase in percentages enrolled in school were most dramatic at ages 16 to 19, the ages for completing high school and beginning college. Eighty-one percent of the youths 16 and 17 years old and 42 percent of those 18 and 19 years old were enrolled in 1960; these percentages have roughly doubled in the last fifty years. About 15 percent of the persons 20 to 24 years old and 5 percent of those 25 to 34 years old were enrolled in regular schools or colleges in 1960.

In both 1950 and 1960, enrollment rates were generally higher for whites than nonwhites at each single year of age 5 to 20; however, the increase in enrollment rates over the decade was as great for nonwhites as for whites at all ages and, in fact, greater for nonwhites at age 5 and ages 16 to 18.

The relative amount of school "retardation" can be measured by calculating the percentage of children at a given age who were attending a grade below the modal grades for that age. The percentage of children who attended grades below the modal grades was much lower in 1960 than in 1950. For example, at age twelve, 11 percent were "retarded" in 1960 as compared with 22 percent in 1950. (For both 1960 and 1950, pupils 12 years old were counted as retarded if they were enrolled below the sixth grade.) "Retardation" was greater at age 12 for boys than girls, for nonwhites than whites, and for children in public than in private schools. Generally, the relative amount of "retardation" increased with age, indicating that at each age those pupils who have previously fallen behind in their school progress are joined by others of their age group who are being "left back" for the first time.

Of the 13.4 million persons 14 to 24 years old in the 50 States and the District of Columbia who were not enrolled in school in 1960, about 5.9 million, or 45 percent, were not high school graduates. Low average educational attainment characterized the younger of these persons not enrolled in school, most of whom constitute "school dropouts." Thus, among 17-year-old youths who were not enrolled in school at the time of the census, 84 percent of the boys and 76 percent of the girls had not finished high school; 20 percent of the boys and 13 percent of the girls had not even completed the eighth grade. Among 16-year-old boys, 92 percent of those enrolled in school were in high school or college whereas only 69 percent of the "dropouts" at that age had completed elementary school.

Enrollment rates by single years of age 5 to 24 were generally highest in the West and lowest in the South. The percent enrolled in school at age 16, when an appreciable number of youths first drop out of school, was highest in Oregon and Hawaii and lowest in South Carolina and Kentucky.

YEARS OF SCHOOL COMPLETED

Definitions

The data on years of school completed were derived from answers to the following questions on the Household Questionnaire:

P14. What is the highest grade (or year) of regular school this person has ever attended? (Check one box)
 If now attending a regular school or college, check the grade (or year) he is in. If it is in junior high school, check the box that stands for that grade (or year).

Never attended school... ☐

Kindergarten..... ☐

Elementary school (Grade)..... ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

High school (Year)..... ☐ 1 ☐ 2 ☐ 3 ☐ 4

College (Year)..... ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 or more

P15. Did he finish the highest grade (or year) he attended?

Finished this grade... ☐ Did not finish this grade... ☐ Never attended school... ☐

These questions on educational attainment applied only to progress in "regular" schools, as defined above. Both questions were asked of all persons 5 years of age and over. In the present report, these data are shown for persons 14 to 24 years old not enrolled in school and for all persons 14 years old and over.

Highest grade of school attended.—The first question called for the highest grade attended, regardless of "skipped" or "repeated" grades, rather than the number of full school years which the person had spent in school. If the highest grade of school attended was in a junior high school, the instructions to enumerators were to determine the equivalent in elementary grades 1 to 8 or high school grades 1 to 4.

In some areas in the United States, the school system has, or formerly had, 11 years of school (7 years of elementary school and 4 years of high school), rather than the more conventional 12 years (8 years of elementary school and 4 years of high school), or equivalent years in the elementary-junior high-senior high school system. Persons who had progressed beyond the 7th grade in this type of school system were treated as though they had progressed beyond the 8th grade of elementary school.

Enumerators were instructed to obtain the approximate equivalent grade in the American school system for persons whose highest grade of attendance was in a foreign school system, whose highest level of attendance was in an ungraded school, whose highest level of schooling was measured by "readers," or whose training by a tutor was regarded as qualifying under the "regular" school definition.

Completion of grade.—The second question on educational attainment asked whether or not the highest grade attended had been finished. It was to be answered "Yes" if the person had successfully completed the entire grade or year indicated in response to the previous question on the highest grade ever attended. If the person was still attending school in that grade, had completed only a half grade or semester, or had dropped out of or failed to pass the last grade attended, the question was to be answered "No."

Highest grade of school completed.—The number in each category of highest grade of school completed for 1950 and 1960 represents the combination of (a) persons who reported that they had attended the indicated grade and finished it, and (b) those who had attended the next higher grade but had not finished it.

Median School Years Completed

The median number of school years completed is defined as the value which divides the population group into two equal parts—one-half having completed more schooling and one-half having completed less schooling than the median. This median was computed after the statistics on years of school completed had been converted to a continuous series of numbers (e.g., completion of the 1st year of high school was treated as completion of the 9th year and completion of the 1st year of college as completion of the 13th year). The persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year. In fact, at the time of census enumeration (generally April or May), most of the enrolled persons had completed at least three-fourths of a school year beyond the highest grade completed, whereas a large majority of persons who were not enrolled had not attended any part of a grade beyond the highest one completed. The effect of the assumption is to place the median for younger persons slightly below, and for older persons slightly above, the true median.

The same procedure for computing this median has been used in the 1940, 1950, and 1960 Censuses. Because of the inexact assumption as to the distribution within an interval, this median is more appropriately used for comparing groups and the same group at different dates than as an absolute measure of educational attainment.

Comparability

1950 and 1940 Censuses.—In 1940, a single question was asked on highest grade of school completed. Analysis of the 1940 returns and those of other surveys conducted by the Census Bureau using wording similar to that used in 1940 indicated that respondents frequently reported the grade or year in which they were enrolled, or had last been enrolled, instead of the one completed. The two-question approach used in 1950 and 1960 was designed to reduce this kind of error.

In 1950, persons for whom highest grade attended was reported but for whom no report was made on finishing the grade were assumed not to have finished the grade if they were at the compulsory school ages but to have finished the grade if they were not at those ages. In 1960, nonresponses on both highest grade attended and completion of grade were eliminated by the procedure described below, in the section on "Editing of unacceptable data."

Current Population Survey.—A comparison of data from the 1960 Census and the March 1959 Current Population Survey on years of school completed for persons 25 years old and over shows that the educational level as given in the CPS is higher than it is in the census. For example, the median number of school years completed for the population 25 years old and over is 11.0 in the CPS and 10.6 in the census. Evidence available at the time this text was prepared suggests that the difference between the two sources in the educational attainment of persons 25 and over did not result from differences in reporting years of school completed but, rather, from differences between the population statistics by age obtained from the 1960 Census and the corresponding estimates used in the CPS for March 1959. The population estimates by age in the CPS were obtained by updating 1950 Census figures; they excluded members of the Armed Forces living off post and were different in certain other respects from census figures (see "General" section above). The CPS figures included relatively more young persons, who are generally better educated, on the average, and comparatively fewer older persons than the census.

Quality of the Data

An examination of nonresponse rates indicates that about 5 percent of the population 25 years old and over in 1960 did not report on highest grade of school completed (including those

who did not report on either the highest grade attended or whether or not it was completed, and those not reporting on one of the items). The level of nonresponse on this subject in 1950 was about the same, when computed on the same basis. (The published nonresponse rate of 2.7 percent for 1950 on years of school completed for persons 25 years and over was based only on persons not reporting on highest grade attended. An additional 2 percent did not report on whether or not the grade was completed but did report on highest grade attended.) In 1960, there was another 1.5 percent of the population of all ages for whom no sample information was obtained. There is little information about the characteristics of persons for whom replies on years of schooling were not obtained in 1960. Nonresponse rates were higher for nonwhite than for white persons, higher for older than younger persons, and higher for urban than for rural-nonfarm residents. Since nonresponses on educational attainment were allocated in the census operation, and because information is not likely to become available on the accuracy of the allocation operation, the quantitative effect of nonresponse on the accuracy of the published education data is not known; it is, however, believed to be small.

According to the Content Evaluation Study (CES) of the 1960 Census there were both considerable gross overstatement and gross understatement of years of schooling. About 16 percent of the population 25 and over in the CES sample reported having completed at least one grade more in the census than in the CES, whereas about 10 percent reported having completed at least one grade lower in the census than in the CES. Because there was somewhat more overstatement than understatement (viewing the CES as the criterion), there was net overreporting of years of school completed for 6 percent of the population 25 years old and over. Corresponding analysis of the 1950 Post-Enumeration Survey shows that the percentages of gross underreporting and gross overreporting were less in 1960 than in 1950 but the percent of net overreporting was about the same in the two censuses.

TABLE X.—SELECTED MEASURES OF REPORTING ON YEARS OF SCHOOL COMPLETED, BASED ON THE 1950 CENSUS AND POST-ENUMERATION SURVEY AND THE 1960 CENSUS AND CONTENT EVALUATION STUDY, FOR THE POPULATION 25 YEARS OLD AND OVER

Category	Percent of population in—	
	1960	1950
Reporting same grade in census and later survey.....	73.3	62.4
Reporting different grade in census and later survey.....	26.7	37.6
Reporting higher grade in census.....	18.4	21.9
Reporting lower grade in census.....	10.4	15.8
Net reporting higher grade in census.....	6.0	6.1

Average Education of Adults Increased Two Years in Two Decades

The educational status of the adult population (those 25 years old and over) in the United States improved considerably between 1940 and 1960. The median number of school years completed, which stood at 8.6 in 1940 and 9.3 in 1950, increased to 10.6 in 1960. There had been a notable decline over the twenty-year period in the percentage of adults who had no years of school completed (from 4 to 2 percent) and less than five years of school completed (from 14 to 8 percent). Significant increases over the two decades were recorded in the percentages of adults 25 and over who were high school graduates (from 24 to 41 percent) and college graduates (from 5 to 8 percent).

Improvement in the educational status of the population over time can be viewed more clearly through an analysis of educational differences by age in 1960. Only 18 percent of the popula-

tion 75 years old and over (who had attended school several generations ago) finished high school. Corresponding figures were 25 percent for persons 60 to 64 years old (who were educated about two generations ago), 48 percent for those 40 to 44 years old (whose schooling was completed roughly one generation ago), and 64 percent for those 20 years old (most of whom have just passed through the educational systems).

In general, women tended to have slightly higher educational attainments than men at each age, but men and women had certain characteristic differences in their educational distributions. Among all age groups, smaller percentages of females than males failed to finish the 8th grade and larger percentages of females than males were high school graduates. At most age groups, particularly at the younger adult ages, larger percentages of men than women started and finished college.

The educational attainment of nonwhites was markedly lower than that of whites for all age groups. The data do show, however, a narrowing of the differentials in the median school years completed for whites and nonwhites. For example, among males, the medians were 8.1 years for whites and 8.9 years for nonwhites at ages 75 and over, 10.7 years for whites and 7.4 years for nonwhites at ages 45 to 49, and 12.4 years for whites and 10.5 years for nonwhites at ages 25 to 29. As in earlier censuses, there were marked differences in 1960 in the average educational level of persons 25 years old and over in urban and rural areas; in the urban part of the United States, the median was 11.1, whereas it was 9.5 and 8.8 for rural-nonfarm and rural-farm residents, respectively.

Among the major regions, the median number of years of school completed in 1960 was highest in the West and lowest in the South at all age groups. Among the geographic divisions, it was highest for the Pacific Division and lowest in the East South Central Division. Variations in the median educational level by age for standard metropolitan statistical areas tended to conform to variations for broader areas of the country, namely, that they were generally highest for metropolitan areas in the West and lowest for those in the South.

State by State, there were wide variations in the educational attainment of adults. In terms of the percent of the population 25 years old and over who were high school graduates, Utah, Alaska, and Nevada ranked highest among the States (56, 55, and 53 percent, respectively), and Mississippi, Arkansas, and Kentucky ranked lowest (30, 29, and 28 percent, respectively).

VETERAN STATUS

Definition

The data on veteran status were derived from answers to the following question on the Household Questionnaire:

P35. If this is a man —

Has he ever served in the Army, Navy, or other Armed Forces of the United States?

Yes ... ☐ No ... ☐ (Check one box on each line)

Was it during:

Korean War (June 1950 to Jan. 1955)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
World War II (Sept. 1940 to July 1947)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
World War I (April 1917 to Nov. 1918)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Any other time, including present service	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Data on veteran status are being published in detail for the first time in this census. In the Census of 1840, a special volume was issued giving the names, ages, and places of residence of pensioners of the Revolutionary War or other United States military

service, but other veterans were not identified. An inquiry on veteran status was undertaken in the Census of 1890, and summary statistics on surviving veterans of the Union and Confederate Armies were published. A question on veteran status was also included in the Censuses of 1910, 1930, 1940, and 1950, but the results of these inquiries were not published because of the high rate of nonresponse and other reasons.

A "veteran" is defined as a person who has served in the Armed Forces of the United States. All other persons are classified as nonveterans. Because relatively few females have served in the Armed Forces of this country, questions on veteran status were asked only of males. Furthermore, the statistics on veteran status presented here are for civilian males only and do not cover persons who were in the Armed Forces at the time of the census.

The veteran population is classified according to period of service. Among veterans with more than one period of service, those who served in both the Korean War and World War II are presented as a separate group. All other persons with more than one period of service reported are shown according to the most recent wartime period of service reported. All data for veterans were edited to eliminate reported periods of service which were inconsistent with reported ages.

Comparability

The figures in this report on the number of veterans cover all civilian males 14 years old and over in the United States who have served in the Armed Forces, regardless of whether their service was in war or during peacetime. The Veterans Administration's estimates include civilian veterans living outside as well as in the United States and, generally speaking, cover only persons with war service. Thus, the count of veterans from the 1960 Census is not directly comparable in all particulars with estimates of the total number of veterans published by the Veterans Administration.

Within these limitations, however, it appears that the 1960 Census figure for veterans of World War II and/or the Korean War is about 7 percent less than the Veterans Administration's estimate, and that the census count and the Veterans Administration's estimate for veterans of World War I are in substantial agreement. The difference in definition of the "other service" category precludes any useful comparison of the figures for this group. It is possible that the census figure, which presumably reflects in large part persons who served between World War II and the Korean War and after the Korean War, is overstated. Additional tabulations of the characteristics of veterans from the 1960 Census, and further study of the figures from both the Census Bureau and Veterans Administration, are being planned in an effort to determine the sources of these differences.

Two Out of Five Adult Civilian Males Are Veterans

The 23 million civilian veterans in the United States were generally younger, more mobile, and had a higher average income than adult nonveterans, according to the results of the 1960 Census. Approximately two-fifths of all civilian males 14 years old and over had served in the Armed Forces of this country during the Korean War, World War II, World War I, or other war or peacetime service.

As a group, the men who reported that they had served in the Armed Forces of the United States were seven years younger than those 14 years old and over who had not been in the service. The median age of veterans of all periods of service was 38.2 years for the country as a whole, ranging from a low of 35.8 years in Hawaii, to a high of 40.1 years in Arkansas. The median age of nonveterans 14 years old and over was 45.2 years. In general, veterans were concentrated in the age range 25 to 44 years—about 64.6 percent of the veterans having been in this age group as compared with 21.9 percent for nonveterans.

The largest group of veterans, those who had served during World War II, were concentrated in the ages from 30 to 49 years with a median age of 40.0. As would be expected, the median ages of those who served in World War I was high, 65.5 years, and those who served in the Korean War and in both the Korean War and World War II was low, 28.4 years and 37.2 years, respectively.

Over half (52.5 percent) of all veterans were living in a different house in 1960 and in 1955, whereas just over two-fifths of the nonveterans (43.1 percent) had moved during the same period. One in every five veterans was living in a different county in 1960 and in 1955 and one in every ten in a different State. Slightly over 1 percent of all veterans (1.3 percent) were abroad in 1955.

The educational attainment of the veteran population as measured by the median number of years of school completed was greater than that of the comparable nonveteran population. For veterans, the median years of school completed was 12.1 years as compared to 9.4 years for nonveterans. This difference results in part from the differences in the age distribution between veterans and nonveterans and from the fact that nonwhites are underrepresented in the veteran population. A comparison of the medians for all veterans in the age groups 25 to 34 and 35 to 44 with the corresponding medians for the white population indicates a slightly higher attainment level for veterans. It is possible that this higher level may in part reflect the results of the financial assistance for education granted under the "GI Bill."

The median income in 1959 of all veterans was \$5,100 as compared with \$3,200 for nonveterans. Here again the differences are in part explained by the concentration of the veteran population in the age levels in which income is highest and the relatively small proportion of nonwhites in the veteran population. However, the median income of all veterans exceeds that of the male white population at ages 25 to 34 and 35 to 44 years. Among families with a veteran as the head, the median income in 1959 was \$6,400. This was approximately \$1,000 higher than the median income of families in which the head was a male nonveteran.

Western States and Urban Areas Have Largest Proportions of Veterans

Since information on veteran status based on census returns is being published for the first time for 1960, it is not possible to note any historical trends among the veteran population. There are a number of regional differences evident from the data presented in this report, the most outstanding of which are the apparent differences among the regions with respect to the percentage of men and youths who have served in the Armed Forces of the United States. For example, in the South only 36 percent of the civilian males 14 years old and over were reported as veterans, whereas in the West 43 percent were veterans. The two regions in the North fall between the South and West in this percentage. A similar, but far more pronounced difference occurs between the rural-farm and urban population within all the regions. In the United States as a whole, 42 percent of the urban civilian males 14 and over were veterans, but only 22 percent of the rural-farm males were veterans.

Regional and urban-rural variations in the percent reported as veterans reflect the post-service mobility of veterans as well as differences in the respective induction rates. Although the South as a whole had a smaller percentage of veterans than the other regions, the percentage of veterans in urban areas of the South was not substantially different from that in urban areas of other regions. On the other hand, the rural population of the South sustained a net loss of almost 6 percent during the 1950's, and it is evident that many persons leaving rural areas of the South went to other regions. Many in the latter group would have been veterans.

MARITAL STATUS

Definitions

The data on marital status were derived from answers to the following question on the Advance Census Report:

Is this person—
 Married
 Widowed
 Divorced
 Separated
 Single (never married)?

(Leave blank for children
 born after March 31, 1946)

(P7)

The classification refers to the marital status of the person at the time of enumeration. Persons classified as "married" comprise, therefore, both those who have been married only once and those who remarried after having been widowed or divorced. Persons reported as separated (either legally separated or otherwise absent from the spouse because of marital discord) are classified as a subcategory of married persons. The enumerators were instructed to report persons in common-law marriages as married and persons whose only marriage had been annulled as single. Persons "ever married" are those in the categories married (including separated), widowed, and divorced.

Differences between the number of married men and the number of married women are due partly to the absence of husbands or wives from the country at the time of enumeration. Examples are women whose husbands were in the Armed Forces overseas and immigrants whose husbands or wives were still abroad. Differences may also arise because the husband and wife have different places of residence, because of differences in the completeness and accuracy of reporting on marital status for men and women, and because of the methods used to inflate the sample cases as explained in the second paragraph below.

Married persons with spouse present are persons whose spouse was enumerated as a member of the same household even though he or she may have been temporarily absent on business or vacation, visiting, in a hospital, etc. The small number of persons living with their spouse in group quarters are classified as married, spouse absent; if a married person in group quarters was in the sample, his spouse was unlikely to be in the sample, because in group quarters the sample consisted of every fourth person in order of enumeration.

The number of married men with wife present shown in this report should, by definition, be identical with the number of married women with husband present. However, the figures may not be exactly the same because, in the weighting of the sample, husbands and their wives were sometimes given different weights. Married persons with "spouse absent—other" comprise married persons employed and living away from their homes, those whose spouse was absent in the Armed Forces, in-migrants whose spouse remained in other areas, husbands or wives of inmates of institutions, married persons (other than separated) who were living in group quarters, and all other married persons whose place of residence was not the same as that of their spouse.

Comparability

Earlier censuses.—Inquiry regarding marital status was first made in the Census of 1880, but the results were not tabulated. The marital status data shown in this report begin with 1890, the earliest date for which the data are available.

The category "separated" was included in the question on marital status for the first time in 1950. Previously, the question included the categories "single," "married," "widowed," and "divorced." This change may have made the number of persons reported as divorced somewhat smaller in 1950 and 1960 than it would have been under the earlier procedure.

The 1960 marital status categories are the same as those of the 1950 Census, except for the exclusion of all persons in group quarters from the category "married, spouse present." It is possible, however, that the use of self-enumeration in 1960 rather than direct enumeration, as in previous censuses, has produced some degree of incomparability in the data.

In 1960, and in previous censuses, marital status was not reported for a small number of persons. For such persons marital status was assigned in 1940 and 1950 on the basis of age and the presence of spouse or children. Because of the methods used in 1950, however, some persons who would have been classified as single under the 1940 procedure were classified as "married, spouse absent" or "widowed" in 1950. The procedures used in 1960 for assigning characteristics such as marital status when they were not reported are described in the section "Editing of unacceptable data."

Current Population Survey.—In general, the percentages of persons in the various marital status categories, according to the 1960 Census, differed very little from those shown by the March CPS. The largest consistent differences were those for divorced persons. The figures in this report show that 2.1 percent of the males 14 years old and over, and 2.9 percent of the females 14 and over, were divorced; the corresponding CPS figures were 1.8 percent and 2.6 percent, respectively. This report shows slightly smaller percentages of single and married males and a smaller percentage of widowed females than the CPS showed.

Quality of the Data

Information on the quality of the data on marital status is available from the studies conducted in connection with the 1960 Census Evaluation and Research Program. A description of these studies and a reference to the publications which present the results may be found in the section above on "Quality of the statistics."

Whether Married More Than Once

The data on whether married more than once were derived from answers to the following question on the Household Questionnaire:

P18. If this person has ever been married—
 Has this person been married more than once?

Once	More than once
<input type="checkbox"/>	<input type="checkbox"/>

Record Proportion Married

The 1960 Census showed a record proportion married, 67.4 percent, among persons 14 years old and over. The corresponding figure for 1950 was 63.6 percent and that for 1940 was 59.6 percent. These findings are consistent with a gradually rising proportion of married couples who survive jointly to old age and with very high marriage rates during the latter part

of the 1940's and moderately high marriage rates during most of the 1950's.

Eighty-one million persons were married and living with their spouse in 1960. Another 5 million married persons were living apart from their spouse because of marital discord or other reasons. About 10 million persons were widows or widowers, 3 million were reported as divorced, and 28 million persons 14 years old and over had never been married. There were nearly 4 widows to every widower in 1960, and 3 divorced women to every 2 divorced men, but only 8 single women to every 10 single men.

The number of persons 14 years old and over who are single increased by about 2 million between 1950 and 1960, or by 7.0 percent; during the same period, the number of persons who were married but separated from their spouses increased by 189,000, or 9.3 percent, and the number of widowed persons by 12.7 percent. The marital status group which apparently experienced the greatest change during the past decade was divorced persons; the 1960 Census showed 28.3 percent more divorced persons than the 1950 Census. This large increase may have resulted, in part, from the use of self-enumeration for the collection of data on marital status in 1960 rather than direct interview as in 1950. All of the changes in marital status reflect, to some extent, changes in the age and sex composition of the population.

The proportion of persons 14 years old and over who were married differed but little by region and was only slightly higher in rural areas than in urban areas, but it was substantially higher for white persons (68.2 percent) than it was for nonwhite persons (61.1 percent). The proportion married was higher for white persons than for nonwhite persons in all regions and in both urban and rural areas, the difference being especially pronounced in the rural areas.

Fewer of today's young women will be spinsters all their lives than was true a generation or so ago. Only 6 percent of women 35 to 39 years old were never married in 1960, compared with 8 percent of women 65 to 69 years old and nearly 10 percent of women 85 years old and over. The youngest age at which fewer than half of all persons were still single was 20 for females and 23 for males. For every woman 25 to 29 years old who was single in 1960, there was a man 30 to 34 who was single.

Eight in ten of all women 25 to 49 years old were married and living with their husband. At higher ages the proportion declined as the proportion of widows increased. Nonetheless, substantial proportions of women of advanced age were living with their husband. For instance, one in four women 75 to 79 years old, and one in seven women 80 to 84 years old were living with their husband.

In 1960, there were 46 million males and 53 million females who had married at some time in their lives. These figures include widowed and divorced persons and persons currently married. The lower figure for males reflects the higher average age at marriage of males and their lower life expectancy. Three-fourths of males ever married were still living with their first wife, and two-thirds of females ever married were still living with their first husband. The lower figure for females is due mainly to the larger proportion of women who were widowed. The proportion of persons ever married still living with their first spouse is a useful indicator of the durability of marriages in various population groups. Thus at age 45 to 49, less than half (48 percent) of nonwhite women ever married were living with their first husband in 1960, compared with nearly three-fourths (73 percent) of white women ever married of this age. This difference reflects the higher proportions of nonwhite women who were currently widowed, separated, or remarried. Fourteen percent of males ever married were married more than once. The proportion was the same for females.

HOUSEHOLD AND GROUP QUARTERS MEMBERSHIP, AND RELATIONSHIP TO HEAD OF HOUSEHOLD

Definitions

The data on households, group quarters, and relationship to head of household were derived in part from the following question on the Advance Census Report:

What is the relationship of each person to the head of this household?

(For example, wife, son, daughter, grandson, mother-in-law, lodger, lodger's wife)

(P3)

HEAD OF HOUSEHOLD

Greater detail on persons classified as "other relative" or "non-relative," which was used in determining family membership, was obtained from the following question on the Household Questionnaire:

P3. What is the relationship of this person to the head of this household?

Head ☐

Wife of head ☐

Son or daughter of head ☐

Other—Write in:
(For example: Son-in-law, mother, uncle, cousin, etc.)

Household.—A household consists of all the persons who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with any other persons in the structure and in which there is either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

The average population per household is obtained by dividing the population in households by the number of households. The number of households is equal to the number of household heads.

Group quarters.—All persons who are not members of households are regarded as living in group quarters. Group quarters are living arrangements for institutional inmates or for other groups containing five or more persons unrelated to the person in charge. Group quarters are located most frequently in institutions, lodging and boarding houses, military and other types of barracks, college dormitories, fraternity and sorority houses, hospitals, homes for nurses, convents, monasteries, and ships. Group quarters are also located in a house or an apartment in which the living quarters are shared by the person in charge and five or more persons unrelated to him.

Five categories of group quarters are shown here:

1. *Rooming or boarding house.*—In addition to rooming and boarding houses, this category includes group quarters in ordinary homes, tourist homes, hotels, motels, residential clubs, Y's, and dormitories for students below the college level. Not all of

the persons in these types of quarters are classified as living in group quarters; some are classified as living in housing units.

2. *Military barracks.*—These are quarters which are occupied by military personnel and which are not divided into separate housing units. In this report, data on persons in such quarters are shown separately only for men.

3. *College dormitory.*—As used here, this term also refers to a fraternity or sorority house.

4. *Institution.*—Institutions include the following types: Correctional institution, hospital for mental disease, residential treatment center, tuberculosis hospital, other hospital for chronic disease, home for the aged and dependent (with or without nursing care), home or school for the mentally or physically handicapped, home for unwed mothers, or a home for dependent and neglected children; or a place providing custody for juveniles, such as a training school for juvenile delinquents, detention home, or diagnostic and reception center. Inmates of institutions are persons for whom care or custody is being provided. "Resident staff members" are persons residing in group quarters on institutional grounds who provide care or custody for the inmates.

5. *Other group quarters.*—These quarters include the following types: General hospital (including quarters for nurses and other staff members), mission or flophouse, ship, religious group quarters (largely quarters for nuns teaching in parochial schools and for priests living in rectories; also other convents and monasteries except those associated with a general hospital or an institution), and dormitory for workers (including bunkhouse in migratory workers' camp, logging camp, or other labor camp). In addition, military barracks occupied by women are classified in this report as "other" group quarters.

All rural-farm persons in group quarters are persons in dormitories for workers located on a farm. In chapter C, these persons were erroneously classified as rural nonfarm because of a processing error.

Relationship to head of household.—The following categories of relationship are recognized in this report.

1. The "head of household" is the member reported as the head by the household respondent. The instructions to enumerators defined the head as the person considered to be the head by the household members. However, if a married woman living with her husband was reported as the head, her husband was classified as the head for the purpose of these tabulations.

Household heads are either heads of primary families or primary individuals. The head of a primary family is a household head living with one or more persons related to him by blood, marriage, or adoption. A primary individual is a household head living alone or with nonrelatives only.

2. The "wife of head" is a woman married to, and living with, a household head. This category includes women in common-law marriages as well as women in formal marriages. This category is somewhat less inclusive than the category of married women, husband present, because it excludes those married women whose husband is not head of the household. By definition, the number of wives of household heads should be identical with the number of heads of households who are married males, wife present, but in practice the two numbers may differ because, in the weighting of the sample, husbands and wives were sometimes given different weights.

3. A "child of head," as shown in tables on relationship in this report is a son, daughter, stepchild, or adopted child of the head of the household (regardless of the child's marital status or age). The term excludes all other children, sons-in-law, and daughters-in-law in the household. "Child of head" is a more inclusive classification than "own child of head." (See section on "Child" below.)

4. An "other relative of head" is a household member related to the head by blood, marriage, or adoption but not included specifically in another category. In table 181 this category includes only such relatives of the head as nephews, aunts, cousins, and grandparents; however, in table 220 the category comprises all relatives of the head other than his wife.

5. A "nonrelative of head" is any person in the household not related to the head by blood, marriage, or adoption. Nonrelatives consist of lodgers and resident employees, as defined below.

A "lodger" is any household member not related to the head except a resident employee. The category lodger includes roomers, boarders, partners, and relatives of such persons, and also foster children and wards. A "resident employee" is an employee of the head of the household who usually resides in the housing unit with his employer; the term also includes the employee's relatives living in the same housing unit. Among the main types of resident

employees are maids, hired farm hands, cooks, nurses, and companions.

Comparability

1950 and 1940 Censuses.—The 1960 definition of a household differs slightly from that used in the 1950 and 1940 Censuses. The change arises as a result of the shift from a dwelling unit to a housing unit as the basic unit of enumeration in the Census of Housing. According to the 1960 definition, a household consists of all the persons who occupy a housing unit, whereas in the earlier censuses, a household consisted of all the persons who occupied a dwelling unit.

A dwelling unit was defined as: (1) A group of rooms occupied or intended for occupancy as separate quarters and having either separate cooking equipment or a separate entrance; or (2) a single room (a) if it had separate cooking equipment, (b) if it was located in a regular apartment house, or (c) if it constituted the only living quarters in the structure.

Housing units differ from dwelling units mainly in that separate living quarters consisting of one room with direct access but without cooking equipment always qualify as a housing unit in 1960 but qualified as a dwelling unit before 1960 only when located in a regular apartment house or when the room was the only living quarters in the structure.

The evidence so far available suggests that the change from the dwelling unit concept to the housing unit concept had relatively little effect on the comparability of the statistics on the number of households for large areas and for the Nation. Any effect which the change in concept may have on comparability can be expected to be greatest in statistics shown in other reports for some small areas, such as city blocks and census tracts. Living quarters classified as housing units in 1960 but which would not have been classified as dwelling units in the earlier censuses tend to be clustered in neighborhoods where many persons live alone in single rooms in hotels, rooming houses, and other light housekeeping quarters. In such areas, the number of households in 1960 may be higher than in 1950 or 1940 even though no housing units were added by construction or conversion.

The count of households in 1950 and 1940 excluded groups of persons living as members of quasi-households. A quasi-household was defined in 1950 as the occupants of a rooming house containing five or more persons not related to the head, or the occupants of certain other types of living quarters, such as dormitories, military barracks, and institutions. The 1940 definition was similar except that a rooming house was regarded as a quasi-household only when it included eleven or more persons not related to the head. The concept of quasi-household used in 1950 and 1940 is thus similar to the concept of group quarters used in 1960.

Except for the household concept, the 1960 definitions with respect to relationship to head of household are essentially the same as those previously used. However, the national statistics for certain relatively small categories by relationship and family status may have been significantly affected through the change in the household definition.

The change from dwelling unit to housing unit (and, therefore, by implication the change in household definition) is discussed in the text of *1960 Census of Housing*, Volume IV, Part 1A, *Components of Inventory Change*. This report contains statistics on dwelling units based on the December 1959 Components of Inventory Change Survey which was part of the 1960 Census of Housing.

Certain differences in processing procedures also affect to a small extent the comparability of 1950 and 1960 figures on the number of households. In 1960, discrepancies between the number of household heads and the number of occupied housing units were resolved in the editing and tabulation processes so that

the two figures for an area, which should be identical by definition, would also be identical in published reports. In 1950, on the other hand, the Population Census was processed separately from the Housing Census and, as a result, small differences between the number of occupied dwelling units and the number of households developed.

Current Population Survey.—The number of households in the United States was 53.0 million in April 1960 according to the census and 52.6 million in March 1960 according to the Current Population Survey. The difference is quite negligible, since the number of households probably increased about 100,000 between March and April 1960, and the CPS figure on households is subject to sampling variability (at the two-standard error level) greater than the observed difference.

Changes in the Living Arrangements of the Population

The number of households in the United States, as indicated above, was 53.0 million in 1960, or about 11 million more than in 1950. This increase was equal to about one-fourth the total number of households at the beginning of the decade. (The change in the household definition probably did not account for more than about three to five percent of this increase.)

Reflecting, among other things, the major migratory streams of the past decade, the increase in the number of households varied quite sharply by regions, ranging from 20.7 percent in the North Central States to 41.6 in the West. The growth rate of the number of households in urban areas (35.5 percent) was far above that in rural areas (4.1 percent). Although the increase in the number of households was greater for the nonwhite population (32.6 percent) than for the white population (24.3 percent), the proportion residing in households continued to be greater for white persons. Of all white persons, 97.3 percent were living in households in 1960 as compared to 96.7 percent of the nonwhite persons.

The average size of households in the United States in 1960 was 3.29 persons. This figure includes the head, his wife (if any), and the children, other relatives, and nonrelatives of the head who live in the same housing unit as the head. The average size of rural-farm households, 3.77 persons, was larger than that of rural-nonfarm households, 3.50 persons, or of urban households, 3.18 persons. Among nonwhite persons, the average size, 3.85, exceeded that among white persons, 3.23. Within the cross-classification of the statistics by residence and color, nonwhite households on farms had the largest average size, 5.30 persons, and white households in urban areas had the smallest, 3.13.

Of the 4.9 million persons in group quarters, that is, persons not in households, 3.3 million were in urban areas and 1.6 million were in rural areas.

Partly because of the relatively high birth rate that prevailed throughout the decade, and partly because of a decline in the average number of adult members per household, children under 18 years of age comprised a substantially larger proportion of the household members in 1960 than they did in 1950—34.2 percent compared with only 29.1 percent. Regionally, the percentage of the population under 18 years of age in households varied from 31.8 in the Northeast to 35.3 in the West.

Heads and wives combined constituted about the same proportion of the total population at the beginning and end of the decade, increasing only slightly from 52.2 percent to 52.9 percent. Relatives of the head other than children and wives, however, dropped from 15.8 to 11.2 percent of the population living in households. The proportion of "other relatives" of the head in households ranged from 8.4 percent in the West to 13.0 percent in the South. Within white households, the proportion of "other relatives" was 10.3 percent compared to 18.8 percent in nonwhite households.

Between 1950 and 1960, the number of inmates of institutions increased by 20.6 percent, whereas the remaining population living in group quarters (such as rooming houses, military barracks, and college dormitories) decreased by 26.5 percent. The net result of these changes was that in 1960 inmates made up 38.3 percent of the population in group quarters, in contrast to 27.5 percent in 1950. The decline in the number of the group quarters members other than inmates reflects in part the change in household definition in the 1960 Census and in part the tendency for more and more adults to maintain their own houses or apartments (hence, to be heads of households) rather than to live in rooming houses.

A particularly noteworthy change in the composition of the population between 1950 and 1960 has been the unusually large increase—80.1 percent—in the number of primary individuals (that is, household heads who were living alone or with nonrelatives only). This increase varied from 70.0 percent in the North Central region to 87.1 percent in the Northeast, and from 34.9 percent in rural areas to 96.7 percent in urban areas. The increase in the number of primary individuals was approximately twice as great among white persons (87.2 percent) as it was for nonwhite persons (42.7 percent).

In 1960, 15.8 percent of all household heads were primary individuals as contrasted with only 10.9 percent in 1950. Increases in the proportion of household heads who were primary individuals were observed in all regions, in rural as well as in urban areas, and among both white and nonwhite persons. As for persons in group quarters, these changes relating to primary individuals reflect both a tendency for an increasing number of persons to maintain homes away from their relatives and a change in the definition of a household in the 1960 Census.

MARRIED COUPLE, FAMILY, SUBFAMILY, CHILD, AND UNRELATED INDIVIDUAL

Married Couple

In the 1960 Census, a married couple is defined as a husband and his wife enumerated as members of the same household. Statistics on married couples were compiled in 1960 for persons in sample housing units only; data are not available for the very small number of married persons in group quarters. Such persons were classified as married, spouse absent. In 1950, figures on married couples in quasi-households are available. For further discussion of this point, see section above on "Marital status" and that below on "Sample design."

The number of married couples, as shown in this report, is identical with the number of married men with wife present. By definition, the number of married couples in any area should also be identical with the number of married women with husband present; however, the two figures may not be exactly the same in this report because of the method used in the weighting of the sample, as noted above in the section on "Marital status."

A "married couple with own household" is a married couple in which the husband is the household head; the number of such married couples is the same as the number of "husband-wife families with own household." Conceptually, the number of married couples with own household should also be equal to the number of women classified as wife of the household head, but the two numbers may not be exactly the same, again, because of the method used in weighting the sample. Complete-count data for women classified as wife of head of household are shown in chapter B.

Decline in Proportion of Couples Without Own Household

In April 1960 there were 40.5 million married couples in the United States. This represented an increase of 15 percent over

the 1950 figure of 35.0 million. In 1960, married couples without their own household numbered only 871,000, or 2 percent of all couples. In 1950, the corresponding figures were 2.3 million, or 7 percent. Most of the couples without their own household were living with relatives, but 38,000 in 1960 were living with non-relatives.

The decline in the proportion of couples without own household was experienced by both whites and nonwhites. However, the proportion of white couples in 1960 without own household, 2 percent, was much smaller than that for nonwhite couples, 5 percent. The proportion of couples without own household in the South and on farms throughout the United States was somewhat higher than the national average; however, the proportion in this category in the West and in the North Central States was lower than the national average.

Family

A family consists of two or more persons living in the same household who are related to each other by blood, marriage, or adoption; all persons living in one household who are related to each other are regarded as one family. Thus, if the son of the head of the household and the son's wife are members of the household, they are treated as part of the head's family. Not all households contain families, because a household may be composed of a group of unrelated persons or one person living alone. A few households contain more than one family, that is, two family groups in the same household in which none of the members of one family is related to any of the members of the other family. A "husband-wife family," as the term is used in the 1960 Census, is a family in which the head and his wife are enumerated as members of the same household.

Table 186 includes statistics on the small number of "secondary families," that is, families with a lodger or resident employee as head. All other families (over 99 percent) are "primary families," that is, families with a household head as the family head. Statistics on the number of heads of primary families are shown on a complete-count basis in chapter B.

45 Million Families in the United States

The number of families in the United States in 1960 was 45.1 million. In 39.6 million families, or seven out of eight of all families, the head was a married man with his wife present in the household. There were 25.7 million families, or 57 percent of all families, with children under 18 years old living in the home.

In conterminous United States there were 45.0 million families, an increase of 17 percent over the number of families in 1950. The proportion of families with own children under 18 was also larger, 57 percent in 1960, compared with 52 percent in 1950.

There were 5.5 million families with no spouse of the head present. Of these, 2.2 million, or 40 percent, had own children under 18 living in the household. There were 1.9 million families with a female head and children, as compared with only 300,000 families with a male head with children but no wife present. Of the women under 35 years old who were family heads, 9 out of 10 had own children living with them. Nonwhite families with female heads included a larger proportion with children than did white families. This was true in most age groups of heads.

In the 25.7 million families with own children under 18, about 21 percent of the family heads had completed one or more years of college, 49 percent had completed one to four years of high school but had not attended college, 14 percent had completed elementary school and no more, and 16 percent had not completed elementary school.

Husband-wife families with own children under 18 and with the head but no other member in the labor force numbered

13.7 million according to figures shown in table 188. In an additional 6.2 million husband-wife families with children, both the head and wife were in the labor force.

In the tabulation of data for table 188 on families by number of members in the labor force and labor force status of head and wife, family members in the Armed Forces were erroneously treated as not in the labor force. Consequently, the number of families with no members in the labor force shown in table 188 is too high and the number of families with one or more members in the labor force is too low. In addition, the number of families with head only in the labor force, and probably also the number with head and wife in the labor force, is too low.

Corrected figures on families by number of members in the labor force based on a 5-percent sample show 4,252,140 families with no member in the labor force, as compared with 4,840,837 families shown in table 188. The difference of 588,197 families is an estimate of the number of families with a member in the Armed Forces and no other member in the labor force. Corrected figures for the United States on families by number of members in the labor force are shown in some detail in the List of Corrections included in this report. Corrected figures on families by labor force status of head and wife are not available. However, the above figure of 588,197 may be used as an approximation of the amount by which the number of families with head only in the labor force shown in table 188 is too low.

Subfamily

A subfamily is a married couple with or without own children, or one parent with one or more own children under 18 years old, living in a housing unit and related to the head of the household or his wife. The number of subfamilies is not included in the count of families. Statistics on subfamilies are included in table 185.

Child

Statistics on the presence of "own" children are shown in several tables in this report for families, subfamilies, and women 15 to 49 years old. An own child is defined here as a person under 18 years of age who is a single (never-married) son, daughter, stepchild, or adopted child of the family head or subfamily head. The number of "persons under 18 living with both parents" includes single stepchildren and adopted children as well as single sons and daughters born to the couple.

Comparisons of figures on children under 18 years old of the household or family head with the total population in the same age group may be affected by the fact that the parent's sample inflation weight was used in some tables (such as table 185), whereas the child's own sample inflation weight was used in others (such as table 181).

Tables 188, 189, and 225 show the number of "related children" under 18 years old in the family. These persons include not only "own" children, as defined above, but also all other family members under 18 (regardless of marital status) who are related to the head or wife by blood, marriage, or adoption.

Seven Out of Eight Children Live With Both Parents

There were 64.0 million unmarried persons under 18 years of age in the United States in April 1960. About 56.3 million, or 7 out of 8, were children living with both parents, 5.8 million were children living with only one parent, and 1.8 million were classified as living with neither parent. Of the children living with one parent, 5.1 million, or 88 percent, lived with their mothers. There were 2.4 million children living in homes with a married mother who lived apart from her spouse because she was separated or for other reasons. About 1.3 million children lived with a widowed mother, 1.2 million lived with a divorced mother, and 221,000 lived with a mother reported as never married.

Ninety percent of the white persons under 18, but only 66 percent of the nonwhite persons under 18 were living with both parents. The State with the highest proportion of persons under 18 living with both parents was North Dakota, with 93 percent. The State with the lowest proportion was Mississippi, with 77 percent; in the District of Columbia, 71 percent of persons under 18 were living with both parents. In the South the proportion (82 percent) was lower than in any other region. Differences between areas in the racial composition of the population—in particular, the high proportion of nonwhite persons in the South—help to account for these differences. Thus, 88 percent of the white persons under 18 in the South, and 65 percent of the nonwhite, were living with both parents. These figures are close to the corresponding figures for the white and nonwhite population in the Nation as a whole.

The average number of children under 18 per married couple with own children under 18 was 2.3 in 1960. This figure is obtained by relating statistics on children living with both parents to married couples with children. The average was also 2.3 for white couples with children, and it was 3.0 for nonwhite couples. For urban couples with children under 18, the average number of such children was, again, 2.3. The corresponding figure was 2.5 for rural-nonfarm couples, and 2.7 for rural-farm couples. Rural-farm nonwhite couples had a higher average number of children under 18 than any other group shown in this report, namely, 3.9 children per couple with children. By contrast, urban white couples had an average of only 2.2 children per couple with children.

Unrelated Individual

As the term is used in the 1960 Census, an unrelated individual is either (1) a member of a household who is living entirely alone or with one or more persons all of whom are not related to him, or (2) a person living in group quarters who is not an inmate of an institution. Unrelated individuals who are household heads are called "primary individuals." Those who are not heads of households are called "secondary individuals." Statistics on primary individuals are presented in chapter B on the basis of complete-count data. Secondary individuals in households are shown in table 181; secondary individuals in group quarters constitute all persons in group quarters except inmates of institutions.

Increase in Household Heads Living Apart From Relatives

About 15 million persons, or 9 percent of the total population of the United States in 1960, were not living in families. Slightly more than half of these persons (8 million) were primary individuals, that is, household heads with no relatives living in the home. The remaining persons were secondary individuals (5 million) or inmates of institutions (2 million). Five out of eight primary individuals in the conterminous United States were females, about the same proportion as in 1950.

Between 1950 and 1960, the number of primary individuals 65 years old and over increased by 80 percent, from 1.8 million to 3.2 million, while the total population of this age increased only 32 percent. One in every four females 65 years old and over was a primary individual in 1960, compared with 1 in 6 females of this age in 1950. The proportion of primary individuals increased in other age groups and among males as well.

Comparability

1950 and 1940 Censuses.—In the 1940 Census and earlier censuses, the number of families was comparable with the number of households, as the term household was used in the 1950 and 1960 Censuses. The 1950 data on families included the very small number in quasi-households as well as those in households. In 1960, however, statistics on families were compiled only for those in households.

Current Population Survey.—The total population shown in the Current Population Survey covers the same universe as that in the decennial census, except that the census includes members of the Armed Forces in the United States living in military barracks, whereas the CPS excludes these members. The 1960 Census showed a total of 868,000 members of the Armed Forces living in barracks; these persons are classified as secondary individuals. Moreover, the residence rules in the CPS are the same as those in the census, except that the census counts college students in dormitories and similar housing facilities as secondary individuals residing in such facilities whereas the CPS counts virtually all of them as family members residing in their parental homes. The 1960 Census showed a total of 829,000 students living in college housing facilities. Together, the members of the Armed Forces in barracks and college students in dormitories totaled 1,697,000 persons, all of whom were counted as secondary individuals in group quarters in the census but not in the CPS. The two groups, therefore, account for most of the difference (2,359,000) between the total number of secondary individuals in group quarters according to the 1960 Census (3,015,000) and the total number according to the March 1960 CPS (656,000); the remaining difference arose from such factors as sampling variability in both sources and differences between enumerative and processing procedures in the census and those in the CPS. (For a fuller treatment of these differences, see the "General" section above.)

Most of the other key numbers in the CPS with regard to household and family status agree closely with those in the census. Thus, the number of secondary individuals in households shown by the CPS (2,507,000) and the census (2,438,000) agreed within the limits of sampling error at the two-standard error level (as measured from the CPS). Likewise, the number of families in the CPS (45,062,000) and in the census (45,128,000) agreed within the corresponding range of sampling error, as did the number of subfamilies (1,511,000 in the CPS and 1,424,000 in the census).

The number of inmates of institutions shown in the March 1960 CPS (1,567,000) was taken directly from the 1950 Census and, accordingly, differs from the number of inmates shown in the 1960 Census (1,897,000 according to the complete-count data in chapter B).

Quality of the Data

Information on the quality of the data on household relationship and families is available from the studies conducted in connection with the 1960 Census Evaluation and Research Program. A description of these studies and a reference to the publications which present the results may be found in the section above on "Quality of the statistics."

CHILDREN EVER BORN

Definition

The data on children ever born were derived from answers to the following question on the Household Questionnaire:

P20. If this is a woman who has ever been married —
How many babies has she ever had, not counting stillbirths?
Do not count her stepchildren or adopted children.

..... OR None... ☐
(Number)

Although the question on children ever born was asked only of women reported as having been married, the number of children reported undoubtedly includes some illegitimate births. It is likely that many of the unwed mothers living with an illegitimate

child reported themselves as having been married and therefore were among the women who were expected to report the number of children ever born, and that many of the mothers who married after the birth of an illegitimate child counted that child (as they were expected to do). On the other hand, the data are, no doubt, less complete for illegitimate than for legitimate births. Consequently, the rates of children ever born per 1,000 total women may be too low. The enumerator was instructed to include children born to the woman before her present marriage, children no longer living, and children away from home, as well as children borne by the woman who were still living in the home.

The FOSDIC form for the sample data contained a terminal category of "12 or more" children ever born. For purposes of computing the total number of children ever born, the terminal category was given a mean value of 13.

Comparability

1950 Census.—The wording of the question used in the 1960 Census differs slightly from that used in 1950. In that census, the question was, "How many children has she ever borne, not counting stillbirths?" The intent of the change was to make the question more understandable to respondents and to obtain a better count from the few women who might misinterpret the word "children" to mean only those who survived early infancy.

Figures in table 190 on women by number of children ever born are for women 15 years old and over, whereas those in table D-1 are for women 14 years old and over.

Current Population Survey.—The data on children ever born from the 1960 Census and those from the August 1959 Current Population Survey are generally in close agreement. For example, the 1960 Census shows, for conterminous United States, 2,575 children ever born per 1,000 white women 35 to 44 years old who had ever married; the corresponding figure from the August 1959 survey is 2,577. For nonwhite women, the comparable figure from the 1960 Census is 3,061 and that from the CPS is 3,051.

Increase in Number of Children Ever Born

Although women 30 to 39 years old had not reached the end of the childbearing period, they had already borne more children (about 2,500 children per 1,000 women) than the women who were 45 to 49 years old (2,245 children per 1,000 women). The average number of children ever born will increase considerably as the women who were 30 to 39 years old in 1960 approach age 45, but the current average is already 17 percent above the lifetime average of about 2,140 children per 1,000 women needed for replacement of the population from generation to generation, given mortality conditions as in 1959.

The experience of the cohort of women who were 50 to 54 years old in 1960 represents a turning point in the trend in completed fertility. They had an average of only 2,176 children ever born per 1,000 women, which is the lowest national average on record for completed fertility. Women at successively older ages in 1960 had successively higher averages, because of a previous trend toward smaller families that ended with the women 50 to 54 years old in 1960.

Women 30 to 34 years old in 1960 who had married were young enough to have participated in the postwar pattern of earlier marriage. They already had borne nearly as many children on the average as women 35 to 39 years old. They had a lower percent of childlessness (10.4 percent for women age 30 to 34 as compared with 11.1 percent for women age 35 to 39) and a lower percent who had borne only one child (14.7 percent and 15.1 percent, respectively).

Changes over the decade in the distribution of women by specific numbers of children ever born can be studied by comparing 1960 Census data for the conterminous United States with corresponding data for the same age group in the 1950 Census. For example, comparisons of data for women 30 to 34 years old in

the two censuses reveal that increases in fertility among women of this age have involved increases in the proportion with three, four, five and six, and seven or more children, and reductions in the proportion with fewer than three children. Thus, the higher orders of births were involved in the changes for this age group. The pattern of change is only in part explained by the fact that the women 30 to 34 years old in 1960 had married earlier on the average and therefore had more time to bear children than women of this age in 1950. As of 1960, the women 30 to 34 years old already had more children on the average than women 40 to 44 years old, who were the survivors of women 30 to 34 years old in the 1950 Census. The average woman 30 to 34 years old in 1950 married and began childbearing during the economic depression of the 1930's.

In 1960, as in 1950, white women had borne fewer children on the average than nonwhite women. The average number of children ever born per 1,000 women ever married 35 to 44 years old rose from 2,271 in 1950 to 2,575 for white women in conterminous United States and from 2,560 to 3,061 for nonwhite women. These figures indicate that the fertility of nonwhite women increased more than that of white women during the 1950's, both absolutely and relatively; therefore, the differences by color widened. In contrast, fertility differences by color narrowed considerably in the period from 1910 to 1940 because nonwhite women had a larger decrease in fertility than white women.

Women in both color groups in urban areas were found to be less fertile than those in rural areas. Among white women, the average number of children per 1,000 women ever married 35 to 44 years old ranged from 2,408 for urban women to 3,262 for rural-farm women; among nonwhite women, the corresponding range was from 2,631 to 5,535. Among the States, Mississippi had the highest average number (3,372) of children ever born per 1,000 women 35 to 44 years old and New York had the smallest number (2,073). The District of Columbia had a lower average (1,723) than any State.

Quality of the Data

Cohorts in successive censuses.—There usually has been a high degree of consistency in the average number of children ever born reported for the survivors of groups of women of completed fertility or substantially completed fertility as they age from census to census. This point is illustrated in table Y. An exception (not shown in the table) to the general consistency may be found in comparisons of data for women 40 to 44 years old in the 1910 Census with those for women 70 to 74 years old in the 1940 Census; the 1910 data show roughly 12 percent more children per woman than the 1940 data. This difference may reflect an inclusion of some stillbirths in the 1910 data.

TABLE Y.—CHILDREN EVER BORN PER 1,000 WOMEN AT SPECIFIED AGES IN 1940, 1950, AND 1960, FOR CONTERMINOUS UNITED STATES

Census	Age of women	Women	Children ever born	
			Per 1,000 total women	Per 1,000 women ever married
1960.....	40 to 44 years old.....	5,082,810	2,170	2,364
1960.....	45 to 49 years old.....	4,917,741	2,173	2,353
1960.....	45 to 49 years old.....	4,480,170	2,202	2,492
1960.....	50 to 54 years old.....	4,399,368	2,284	2,489
1940.....	40 to 44 years old ¹	4,327,860	2,490	2,754
1950.....	50 to 54 years old.....	4,077,240	2,497	2,706
1960.....	60 to 64 years old.....	3,719,085	2,502	2,710
1940.....	45 to 49 years old ¹	4,001,300	2,740	2,998
1950.....	55 to 59 years old ²	3,567,120	2,728	2,954

¹ Rates shown for 1940 include estimates of children ever born for women with no report and therefore differ from those published in the 1940 Census reports.

² 1960 data not available for women 65 to 69 years old.

Content Evaluation Study.—During a reinterview of a sample of the population to investigate errors of response in the 1960 Census, women ever married were asked about children who had died or left home and about adoptions and stepchildren, to improve the information on number of children actually born to each woman. The data from the reinterview were compared with 1960 Census data for the identical women. Exact agreement on the number of children ever born occurred for 91.9 percent of the women with a report in both surveys; the reinterview count was higher than the census count for 5.4 percent, and lower for 2.8 percent. The total number of children ever born to these women was 1.7 percent smaller in the census than that obtained in the reinterview.

NUMBER OF OWN CHILDREN UNDER 5 YEARS OLD

Definition

Data on women by age, classified by number of own children under 5 years old, provide a rough indication of how recent fertility has varied with age of women. (See section above on "Child" for definition of own child.) These data exclude children not living with their mother, because information on age of the mother was not available on the same household questionnaire on which such children were enumerated. Because the sample data on own children under 5 (in tables 192 and 193) are inflated by the sample inflation weight of the mother rather than the sample inflation weight of the child, the results may not be strictly comparable with the data on the total number of children under 5 years old shown in other tables in this report. The data on own children under 5 years old in this report include corrections for errors discovered in the State reports after they had been published.

Current Fertility Rates Were Higher in 1960 Than in 1950 and 1940

The relatively high birth rates during the five years preceding the census are reflected in 1960 Census data on women by number of own children under 5 years old as compared with data from the 1950 Census and the 1940 Census. Among women under the age of 30 who had married, increases in rates of own children under 5 years old were larger in the period from 1950 to 1960 than in the period from 1940 to 1950, both relatively and absolutely. Among women 35 to 44 years old, however, the corresponding increases were smaller in the 1950's than in the 1940's.

A somewhat different trend is observed in the corresponding data for women of all marital classes, including single women, all of whom were considered childless for the purpose of these tabulations. At each age group these rates showed smaller relative increases for the period 1950 to 1960 than for the period 1940 to 1950. This situation is explained by the fact that the earlier period was affected by a trend toward relatively more married women in each age group as well as by changes in fertility of the women who had married. By 1950 this trend toward higher proportions married had largely run its course; thereafter, increases in the fertility of women of all marital classes depended mainly on changes in the fertility of the women who had married and relatively little on further reductions in the proportion of women of each age who were single.

The 19.6 million own children under 5 years old of ever-married women 15 to 49 years old comprised 96.5 percent of the total child population under 5 years old in 1960. Most of the difference between the number of own children and the population under 5 years old probably reflects children not living with their mothers.

The proportion of children under 5 years old who are not classified as own children was much larger for nonwhites (14.8 percent) than for whites (1.6 percent). A relatively larger proportion of young nonwhite children are known from statistics

on relationship to be grandchildren of the household head. Evidently, in numerous instances, the grandparents take care of the child while the mother works and lives elsewhere.

EMPLOYMENT STATUS

Definitions

The data on employment status were derived from answers to the following questions on the Household Questionnaire:

P22. Did this person work at any time last week? Include part-time work such as a Saturday job, delivering papers, or helping without pay in a family business or farm. Do not count own housework. Yes ---- <input type="checkbox"/> No ---- <input type="checkbox"/>	
P23. How many hours did he work last week (at all jobs)? (If exact figure not known, give best estimate) 1 to 14 hours ---- <input type="checkbox"/> 40 hours ---- <input type="checkbox"/> 15 to 29 hours ---- <input type="checkbox"/> 41 to 48 hours ---- <input type="checkbox"/> 30 to 34 hours ---- <input type="checkbox"/> 49 to 59 hours ---- <input type="checkbox"/> 35 to 39 hours ---- <input type="checkbox"/> 60 hours or more ---- <input type="checkbox"/>	
P24. Was this person looking for work, or on layoff from a job? Yes ---- <input type="checkbox"/> No ---- <input type="checkbox"/>	
P25. Does he have a job or business from which he was temporarily absent all last week because of illness, vacation, or other reasons? Yes ---- <input type="checkbox"/> No ---- <input type="checkbox"/>	

The series of questions on employment status are designed to identify, in this sequence: (a) Persons who worked at all during the reference week; (b) those who did not work but were looking for work or were on layoff; and (c) those who neither worked nor looked for work but had jobs or businesses from which they were temporarily absent. For those who worked during the reference week, a question was asked on hours of work.

Reference week.—In the 1960 Census, the data on employment refer to the calendar week prior to the date on which the respondents filled their Household Questionnaires or were interviewed by enumerators. This week is not the same for all respondents because not all persons were enumerated during the same week. The majority of the population was enumerated during the first half of April. The employment status data for the 1950 Census refer to the approximately corresponding period in 1950. The 1940 data, however, refer to a fixed week, March 24 to 30, 1940, regardless of the date of enumeration.

Employed.—Employed persons comprise all civilians 14 years old and over who were either (a) "at work"—those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or in a family business; or (b) were "with a job but not at work"—those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of bad weather, industrial dispute, vacation, illness, or other personal reasons. There appears to have been a tendency for seasonal workers, particularly noticeable for nonwhite women in the rural South, to report themselves as "with a job but not at work" during the off-season.

Unemployed.—Persons are classified as unemployed if they were civilians 14 years old and over and not "at work" but looking for work. A person is considered as looking for work not only if he actually tried to find work during the reference week but also if he had made such efforts recently (i.e., within the past 60 days)

and was awaiting the results of these efforts. Examples of looking for work are:

1. Registration at a public or private employment office.
2. Meeting with or telephoning prospective employers.
3. Being on call at a personnel office, at a union hall, or from a nurses' register or other similar professional register.
4. Placing or answering advertisements.
5. Writing letters of application.

Persons waiting to be called back to a job from which they had been laid off or furloughed were also counted as unemployed. Unemployed persons who have worked at any time in the past are classified as the "experienced unemployed."

Labor force.—The labor force includes all persons classified as employed or unemployed, as described above, and also members of the Armed Forces (persons on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). The "civilian labor force" comprises only the employed and unemployed components of the labor force. The "experienced civilian labor force" comprises the employed and the experienced unemployed.

Not in labor force.—This category consists of all persons 14 years old and over who are not classified as members of the labor force and includes persons doing only incidental unpaid work on a family farm or business (less than 15 hours during the week). Most of the persons in this category are students, housewives, retired workers, seasonal workers enumerated in an "off" season who were not looking for work, inmates of institutions, or persons who cannot work because of long-term physical or mental illness or disability.

Unemployment rate.—The number of unemployed as a percent of the civilian labor force is sometimes referred to as the "unemployment rate." The unemployment rates shown for occupation and industry groups in tables 205 and 213 are based on the experienced civilian labor force, since unemployed persons without previous work experience cannot be classified according to occupation and industry.

Problems in Classification

The classification of the population by employment status is subject to error in marginal cases. Some of the concepts are difficult to apply; more important, for certain groups, the complete information needed is not always obtained. For example, students or housewives may not consider themselves as working if their job required only a few hours of work a week.

Comparability

1950 and 1940 Censuses.—The 1950 and 1940 Census questionnaires, interviewing techniques, and tabulation procedures differed somewhat from each other and from those used in the 1960 Census. In addition, modification in wording and some simplification in concepts were introduced in 1960, instead of using the Current Population Survey questions and concepts almost unchanged as was done in the 1950 Census. This was in recognition of the different tasks, motivation, and training of the enumerators in the CPS and the census.

The so-called "main activity" question of 1950—"What was this person doing most of last week—working, keeping house, or something else?"—was omitted from the 1960 schedule on the assumption that the information obtained in that item (e.g., the knowledge that a person was primarily a housewife or a student) might induce enumerators, in direct interview situations, to omit the follow-up questions on work activity, job seeking, etc. It was felt that the loss of the classification of nonworkers (keeping house,

in school, unable to work, and "other") shown in 1950 would not be serious. Actually, the only group that cannot be approximated by means of data on marital status and school enrollment is the "unable to work" category.

The question on unemployment was revised in conformity with the classification under the 1957 CPS revision of the definition of persons on temporary (less than 30-day) layoff as unemployed, as well as with the previous implicit inclusion with the unemployed of those on "indefinite" layoff. Formerly, such persons were included among the employed. However, no mention was made either on the schedule or in instructions to enumerators of the other small categories of "inactive" unemployed covered under CPS concepts and in the 1950 and 1940 Censuses, that is, those who would have been looking for work except for temporary illness or belief that no suitable work was available in their community. The definition of "unpaid family work" was simplified to include any work done without pay in an enterprise operated by a relative, without further specifying (as in CPS and in the 1950 Census) that this relative had to be a member of the same household. In 1940, this relative had to be a member of the same family.

The 1940 data for the employed and unemployed in this report differ in some cases from the figures published in the reports of that census. Members of the Armed Forces living in the United States in 1940 were originally included among employed persons. In this report, the figures for 1940 on employed persons have been adjusted to exclude the estimated number of men in the Armed Forces. Similarly, statistics for persons on public emergency work in 1940 were originally published separately, but in this report they have been combined with those for persons classified as unemployed.

Current Population Survey.—A comparison of 1960 and 1950 totals on employment status from the decennial census and from the Current Population Survey, shows a decrease in the difference between the figures from the two sources. The size of the civilian labor force in the United States, based on sample data from the 1960 Census, was only 1.7 million, or 2 percent, below the corresponding figure from the April 1960 CPS. In 1950, the comparable difference was 3.1 million, or 5 percent. The closer agreement was noted in all groups by color and sex. The narrowing of the difference presumably resulted from the combined effects of changes in enumeration procedures and in questionnaire design for the 1960 Census. Especially noteworthy is the reduction in the difference between the two sets of figures on unemployed persons. The 1960 Census figure was only 155,000, or 4 percent, below the CPS unemployment figure; but the 1950 Census figure was 683,000, or 19 percent, below the one from the CPS. Much improvement in the census data on employment status in 1960 is also evident from the labor force data¹² by age and sex. Among youths 14 to 17 years old, the 1950 Census figure showed 580,000, or 27 percent, fewer in the labor force than the CPS figure. The difference was reduced to 375,000, or 14 percent, in 1960. Likewise, among older workers—65 years old and over—the difference of 148,000, or 5 percent, in 1950 was reduced to 58,000, or 2 percent, in 1960. Most of the deficit in the 1960 Census employment level was in agriculture rather than in nonagricultural industries, where the difference was only 382,000, or 0.6 percent.

Other data.—Because the 1960 Census employment data were obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. The data obtained from households provide information about the work status of the whole population without duplication. Persons employed at more

¹² Census data adjusted to exclude inmates of institutions and include members of the Armed Forces overseas.

than one job are counted only once in the census and are classified according to the job at which they worked the greatest number of hours during the reference week. In statistics based on reports from business and farm establishments, on the other hand, persons who work for more than one establishment may be counted more than once. Moreover, other series, unlike those presented here, may exclude private household workers, unpaid family workers, and self-employed persons, but may include workers less than 14 years of age.

An additional difference between the two kinds of data arises from the fact that persons who had a job but were not at work are included with the employed in the statistics shown here, whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the household reports include persons on the basis of their place of residence regardless of where they work, whereas establishment data report persons at their place of work regardless of where they live. This latter consideration is particularly significant when data are being compared for areas where a number of workers commute to or from other areas.

For a number of reasons, the unemployment figures of the Bureau of the Census are not comparable with published figures on unemployment compensation claims. Generally, persons such as private household workers, agricultural workers, State and local government workers, the self-employed, new workers, and workers whose rights to unemployment benefits have expired, are not eligible for unemployment compensation. Further, many employees of small firms are not covered by unemployment insurance. In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Bureau of the Census. Persons working only a few hours during the week and persons classified as "with a job but not at work" are sometimes eligible for unemployment compensation but are classified as "employed" in the census reports. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as the place of residence of the unemployed worker.

Quality of the Data

The CPS-Census match, as described in the section above on "Quality of the statistics," permitted a comparison of labor force entries on the FOSDIC schedules in the 1960 Census and in the April 1960 CPS for identical persons. Some of the measures of accuracy derived from this study are presented here for statistics on employment status. In interpreting differences between the CPS and census data, it is helpful to be aware of possible biases in the matched sample. For example, census data in the matched sample closely resemble the published census data in most categories but show a somewhat higher proportion classified as employed in agriculture.

Table Z presents indices of gross and net shift for employment status data for identical persons. The index of net shift represents the difference between the number found in a particular category in the census and the number found in the CPS expressed as a percentage of the number in the CPS category. (The CPS has been used as the standard for such measures.)¹⁸ The index of net shift may be considered as an estimate of the bias of the census data according to the CPS.

The index of gross shift represents the sum of the cases in a particular category in one enumeration (CPS or census) but not in the other, expressed as a percentage of the total cases in that

TABLE Z.—INDICES OF NET AND GROSS SHIFT FOR MATCHED PERSONS IN CPS-CENSUS MATCH STUDY, BY EMPLOYMENT STATUS AND SEX: 1960 AND 1950

[Civilian noninstitutional population. Excludes cases with employment status not reported. Minus sign (-) indicates understatement in census; plus sign (+) indicates overstatement]

Employment status and sex	Index of net shift		Index of gross shift	
	1960	1950	1960	1950
BOTH SEXES				
Civilian labor force.....	-2.6	-3.6	12.8	12.4
Employed.....	-2.4	-2.7	13.0	12.9
Agriculture.....	-12.7	-10.7	45.7	33.9
Nonagricultural industries.....	-1.5	-1.6	12.7	12.7
Unemployed.....	-6.5	-18.3	105.6	90.8
Not in labor force.....	+3.6	+4.7	17.4	16.6
MALE				
Civilian labor force.....	-2.6	-2.2	7.2	7.2
Employed.....	-2.6	-1.2	8.2	8.4
Agriculture.....	-13.6	-5.5	35.8	24.0
Nonagricultural industries.....	-1.2	-0.4	8.4	9.4
Unemployed.....	-4.4	-18.1	92.9	80.7
Not in labor force.....	+11.8	+11.5	31.2	37.6
FEMALE				
Civilian labor force.....	-2.7	-6.8	24.2	25.6
Employed.....	-2.2	-5.2	22.8	24.2
Agriculture.....	-7.3	-46.4	107.7	101.6
Nonagricultural industries.....	-2.0	-3.8	20.8	20.2
Unemployed.....	-10.3	-18.9	127.3	120.3
Not in labor force.....	+1.5	+3.2	13.7	11.9

category according to the CPS. Thus, the index of gross shift covers the cases presumably improperly included or excluded from the category according to the CPS and is a measure of the combined effect of response variability in the census and in the CPS. For comparison the table also shows similar measures for the same employment status categories from the 1950 match study. A general factor to consider in interpreting the differences between CPS and census data is the time period of enumeration. (See section "Comparability," paragraph on Current Population Survey.) Thus, some proportion of the differences is explained by real changes in status over a period of time.

The indices of net shift show that, in general, the 1960 Census employment status data have lower net shifts or estimates of bias than those observed for 1950. This situation supports the findings stated in the section on "Comparability," which compared published census data with published CPS data. For the civilian labor force, the employed, the unemployed, and those not in the labor force, the indices of net shift in 1960 were lower than in 1950.

Most of the reductions in the indices of net shift occurred among females. In contrast to 1950, the net shifts for women in 1960 were no longer materially greater than those for men. Among the unemployed, the index of net shift fell from 18.3 percent to 6.6 percent, with substantial reductions for both males and females.

Indices of gross shift in 1960 for employment status are about as high as or higher than those in 1950 for most categories. This generalization applies to both males and females. A somewhat different conclusion, however, is reached on the basis of another index, as described below.

Table AA presents indices of net and gross shift for the labor force by age and sex for 1960. Inconsistent reporting appears most serious for the young and old among both males and females. However, job volatility for these groups is quite high; and therefore these rates may be reflecting true changes in job status to some extent. The tenuous nature of their job attachments also makes for great difficulty in consistent reporting.

¹⁸ See U.S. Bureau of the Census, "Response Variance and Biases in Censuses and Surveys," by A. Ross Eckler and William N. Hurwitz, June 1957.

TABLE AA.—INDICES OF NET AND GROSS SHIFT FOR MATCHED PERSONS IN CPS-CENSUS MATCH STUDY, FOR THE CIVILIAN LABOR FORCE, BY AGE, COLOR, AND SEX: 1960

[Civilian noninstitutional population. Excludes cases with employment status not reported. Minus sign (−) indicates understatement in census; plus sign (+) indicates overstatement]

Age and sex	Index of net shift			Index of gross shift		
	Total	White	Non-white	Total	White	Non-white
Total, 14 and over	−2.7	−2.2	−7.2	12.9	11.8	22.8
14 to 17 years	−14.2	−12.1	−38.5	59.7	58.3	92.7
18 and 19 years	−5.1	−4.2	−12.6	21.8	18.6	50.2
20 to 24 years	−2.7	−1.9	−9.1	11.8	10.5	21.2
25 to 34 years	−0.3	−0.1	−2.7	8.0	7.2	14.6
35 to 44 years	−0.6	+0.2	−7.3	7.5	6.5	16.4
45 to 54 years	−2.0	−1.7	−1.5	8.9	8.2	16.3
55 to 64 years	−5.8	−5.4	−10.0	12.9	12.1	22.5
65 years and over	−6.9	−6.7	−20.6	34.8	33.7	47.6
Male, 14 and over	−2.6	−2.2	−7.0	7.2	6.7	12.5
14 to 17 years	−16.5	−14.3	−38.4	48.9	45.1	83.3
18 and 19 years	−6.4	−3.7	−28.3	18.3	15.4	35.8
20 to 24 years	−2.5	−1.8	−7.9	7.5	6.9	11.2
25 to 34 years	−1.0	−0.6	−4.0	2.5	2.1	6.5
35 to 44 years	−1.0	−0.7	−2.8	2.2	1.8	5.9
45 to 54 years	−1.0	−0.8	−2.8	3.0	3.0	2.8
55 to 64 years	−3.5	−3.5	−5.3	7.8	7.6	10.7
65 years and over	−9.1	−8.8	−13.6	28.9	28.2	38.1
Female, 14 and over	−2.7	−2.0	−7.5	24.3	22.5	37.2
14 to 17 years	−8.4	−7.7	−26.8	81.7	73.6	114.0
18 and 19 years	−3.4	−4.8	+22.9	25.9	22.1	97.9
20 to 24 years	−3.0	−2.0	−10.9	13.5	10.6	37.1
25 to 34 years	+1.3	+1.3	+1.4	21.5	20.6	26.3
35 to 44 years	+0.3	+2.2	−11.6	19.0	17.2	30.3
45 to 54 years	−2.9	−3.3	+0.4	10.7	17.9	35.2
55 to 64 years	−10.7	−9.6	−20.4	23.9	22.0	40.9
65 years and over	−1.5	+1.8	−32.6	48.9	47.3	64.0

The index of gross shift shown here has been the traditional measure used in evaluation studies. It was sometimes referred to as simply the gross difference rate, but this term is not used here because of the possibility of confusion with another measure. Recent research in this field has led to the development of an improved index. This measure is called the "index of inconsistency" and is formulated in such a way as to make these estimates of inconsistency of response more comparable from one item to another and from one time to another.

If the entries off the main diagonal in a 2 x 2 table, i.e., the cases in a particular category in one enumeration (CPS or census) but not in the other, are identified as d, the sum of all entries in the table as n (the universe), the proportion having the characteristic in the census as p, then the index of inconsistency can be defined as $I = \frac{d}{2np(1-p)}$. The p(1-p) in the denominator of I is taken from the census because most of the response variability arises in the census.

Illustration: Table BB presents the index of inconsistency for the labor force items from the 1950 and 1960 Censuses and indicates differences in the respective indices of inconsistency, most of which are about the same although they are slightly favorable to the 1960 Census.

Married Women and Middle-Aged Women Lead Increase in Labor Force

The 69.9 million persons 14 years old and over in the labor force in 1960 exceeded by 9.5 million, or 16 percent, the number in the labor force in 1950. During the same period, the total population 14 years old and over increased by a somewhat smaller proportion, 12 percent. As a consequence, the labor force participation rate increased by 3 percent from 1950 to 1960. About three-fifths of the 1950-60 increase in the labor force occurred among women, although less than one-third of all workers were women. In 1960, 22.4 million women, or 35 percent of all women

TABLE BB.—INDEX OF INCONSISTENCY FOR MATCHED PERSONS IN CPS-CENSUS MATCH STUDY, BY EMPLOYMENT STATUS AND SEX: 1960 AND 1950

[Minus sign (−) indicates greater unreliability in 1960 Census than in 1950 Census; plus sign (+) indicates greater unreliability in 1960 Census]

Employment status and sex	Index of inconsistency (I)		Differences
	1960	1950	
MALE			
Civilian labor force.....	.18	.21	+ .03
Employed.....	.17	.20	+ .03
Agriculture.....	.22	.14	− .08
Nonagricultural industries.....	.13	.14	+ .01
Unemployed.....	.50	.51	+ .01
Not in labor force.....	.18	.21	+ .03
FEMALE			
Civilian labor force.....	.19	.19
Employed.....	.17	.18
Agriculture.....	.59	.96	+ .36
Nonagricultural industries.....	.16	.14	− .02
Unemployed.....	.72	.75	+ .03
Not in labor force.....	.18	.19

14 years old and over, were in the labor force; in 1950, the corresponding figures were 16.6 million women and 29 percent. Thus, the labor force participation rate for women rose about one-fifth during the 1950's. In 1940, 12.9 million women, or 25 percent, were in the labor force.

Increases in labor force participation rates for women occurred particularly among those who were married and those of middle age. Thus, in 1960, 12.4 million, or 31 percent, of the 40.3 million women who were married and living with their husbands were in the labor force; the corresponding proportion in 1950 was 22 percent. Moreover, the number of women 45 to 64 years old in the labor force rose from 4.4 million in 1950 to 7.7 million in 1960; the labor force participation rate for women in this age group in 1950 was 29 percent as compared with 42 percent in 1960.

Labor force rates for women vary considerably by age.—The labor force rate rose from 6 percent for females 14 years old to a peak of 50 percent at age 19. The rate declined steadily after age 19, as many women in their twenties left their jobs to take on marital responsibilities. For women 25 to 29 years old, 55 percent were married, living with their husband, and had children under 6 years old. Among women of this age group only 35 percent were in the labor force. After the children are well into their school years, many women return to work, as can be seen in the rise in the labor force rate from 35 percent for women 30 to 34 years to 47 percent for those between 45 and 49 years. For females 65 years old and over, about one out of every ten were in the labor force and only about half of those in the labor force were employed full time.

Although the numerical increase of those in the labor force was greater for women than for men over the decade, male workers still showed a sizable increase of 3.7 million. However, the labor force participation rate actually decreased slightly among males. The participation rate among males 14 to 24 is lower than that for all persons 14 and over, obviously because many in the age group have not completed their schooling. Of the 13.4 million males 14 to 24, 7.6 million, or 57 percent, were in the labor force.

Men who had completed their education and those who had assumed the responsibilities of marriage had substantially higher labor force rates and tended to work at full-time jobs to a greater extent than those men still enrolled in school and unmarried. Between the ages of 30 and 39 years, the male labor force rate reached a peak of 96 percent with only 5 percent of its workers

engaged in part-time activity. This group had a relatively high proportion (87 percent) of married men. After age 64, labor force participation dropped sharply and the proportion of workers undertaking part-time jobs increased. The labor force participation rate for this older age group decreased from 42 percent in 1950 to 31 percent in 1960. The number of labor force participants 65 and over decreased from 2.4 million to 2.2 million within the 10-year span, despite the fact that the population in that age group increased from 5.7 million to 7.3 million.

Nonwhite males had a lower labor force participation rate, 72 percent, than white males, 78 percent. For females, this situation was reversed; nonwhites females had a labor force participation rate of 42 percent, as compared with 34 percent for white females.

According to the 1960 Census, the number of unemployed persons throughout the Nation in April 1960 totaled 3.5 million, representing an unemployment rate of 5 percent for the civilian labor force. There were 2.3 million unemployed males and 1.2 million unemployed females; the unemployment rate for both males and females was about 5 percent. Nonwhite persons had a higher rate of unemployment (9 percent) than white persons (5 percent).

HOURS WORKED

The statistics on hours worked pertain to the number of hours actually worked, and not necessarily to the number usually worked or the scheduled number of hours. For persons working at more than one job, the figures reflect the combined number of hours worked at all jobs during the week. The data on hours worked presented here provide a broad classification of persons at work into full-time and part-time workers. Persons are considered to be working full time if they worked 35 hours or more during the reference week and part time if they worked less than 35 hours. The proportion of persons who worked only a small number of hours is probably understated because such persons were omitted from the labor force count more frequently than were full-time workers. The comparability of data for 1960 and 1950 on hours worked may be affected by the fact that in 1950 a precise answer on number of hours was requested, whereas in 1960 check boxes were provided as shown in item P23.

WEEKS WORKED IN 1959

Definition

The data on weeks worked in 1959 were derived from answers to the following two questions on the Household Questionnaire:

P30. Last year (1959), did this person work at all, even for a few days?

Yes ☐ No ☐

P31. How many weeks did he work in 1959, either full-time or part-time? Count paid vacation, paid sick leave, and military service as weeks worked.

(If exact figure not known, give best estimate)

13 weeks or less ☐ 40 to 47 weeks ☐
14 to 26 weeks ☐ 48 to 49 weeks ☐
27 to 39 weeks ☐ 50 to 52 weeks ☐

The data pertain to the number of different weeks during 1959 in which a person did any work for pay or profit (including paid vacation and sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the Armed Forces are also included. It is probable that the number of persons who worked in 1959 and the number of weeks they worked are understated, because there is some tendency for respondents

to forget intermittent or short periods of employment, or they may have a tendency not to report weeks worked without pay.

Comparability

1950 Census.—The comparability of data on weeks worked collected in the 1950 Census with data collected in the 1960 Census may be affected by certain changes in the questionnaires. In the 1960 questionnaire, two separate questions were used to obtain this information. The first was used to identify persons with any work experience in 1959 and thus to indicate those for whom the questions on number of weeks worked and earned income were applicable. This procedure differs from that used in 1950, when the schedules contained a single question regarding the number of weeks worked.

Current Population Survey.—The number of persons 14 years old and over who worked in 1959, according to the 1960 Census, was 794,000, or 1 percent, below the level shown by the Current Population Survey. This compares quite favorably with the deficiency of 7.1 million, or 10 percent, noted in 1950. This reduction in difference was probably caused by the same factors noted above in the section on "Employment status."

Quality of the Data

Information on the quality of the statistics on weeks worked presented in table CC was obtained from the CPS-Census match described above. The table presents indices of net and gross shift for weeks worked in 1959 for identical persons from the matched study. (See section on quality of the data on employment status for definition of indices of net and gross shift.) Largest relative differences occur in the "40 to 47 weeks" and "48 to 49 weeks" categories for both sexes. Both net and gross shifts for males were lower than those for females in most of the weeks worked categories. This differential is probably due to the predominance of part-time work among females, which results in a greater degree of response variance for this item for females than males.

TABLE CC.—INDICES OF NET AND GROSS SHIFT FOR MATCHED PERSONS IN CPS-CENSUS MATCH STUDY, BY WEEKS WORKED IN 1959, BY COLOR AND SEX: 1960

[Excludes cases not reporting on work experience in 1959 and weeks worked in 1959. Minus sign (—) indicates understatement in census; plus sign (+) indicates overstatement]

Weeks worked in 1959 and sex	Index of net shift			Index of gross shift		
	Total	White	Non-white	Total	White	Non-white
BOTH SEXES						
Worked in 1959.....	-4.4	-3.9	-9.7	12.7	11.8	21.1
50 to 52 weeks.....	-9.1	-9.0	-10.1	29.5	27.7	50.5
48 to 49 weeks.....	+24.0	+28.1	-9.3	177.6	180.3	155.6
40 to 47 weeks.....	+23.2	+19.2	+60.8	146.4	143.6	172.6
27 to 39 weeks.....	+4.3	+4.1	+5.9	116.0	111.9	144.7
14 to 26 weeks.....	-16.4	-13.3	-35.1	102.0	100.4	118.4
13 weeks or less.....	-7.3	-2.5	-34.4	96.7	96.6	97.1
Did not work in 1959.....	+7.9	+6.8	+21.2	22.9	20.8	46.1
MALE						
Worked in 1959.....	-2.2	-1.7	-7.5	6.8	6.2	13.0
50 to 52 weeks.....	-5.7	-6.0	-1.4	24.8	23.4	42.8
48 to 49 weeks.....	+32.9	+38.4	-16.0	189.8	194.4	148.7
40 to 47 weeks.....	+21.4	+17.9	+64.5	151.1	148.6	182.5
27 to 39 weeks.....	+3.4	+1.7	+15.4	116.9	114.7	132.6
14 to 26 weeks.....	-15.3	-6.2	-56.7	107.4	106.5	111.8
13 weeks or less.....	-7.3	-0.7	-44.3	106.9	106.8	107.2
Did not work in 1959.....	+12.5	+9.8	+38.3	38.9	36.5	58.0
FEMALE						
Worked in 1959.....	-8.3	-7.7	-12.6	22.9	21.8	30.4
50 to 52 weeks.....	-17.8	-16.0	-25.6	41.6	39.1	64.7
48 to 49 weeks.....	+8.9	+10.1	0.0	156.8	155.6	165.1
40 to 47 weeks.....	+26.1	+21.4	+57.5	139.1	135.5	162.9
27 to 39 weeks.....	+5.4	+7.0	-5.9	114.9	108.5	159.7
14 to 26 weeks.....	-17.3	-18.5	-6.8	99.3	95.0	127.1
13 weeks or less.....	-7.2	-3.6	-28.3	90.5	90.5	90.9
Did not work in 1959.....	+6.8	+6.0	+16.7	18.9	17.1	41.6

Increase in Part-Year Job Holders

The 77.4 million persons who worked at some time during 1959 exceeded by 7.5 million, or 11 percent, the number of persons (69.9 million) in the labor force in April 1960. The difference is attributable in part to large amounts of job turnover among certain types of persons, particularly students and married women with family responsibilities, and in part to retirement of older persons.

The 77.4 million persons who worked at some time during 1959 was 27 percent greater than the 60.7 million persons who worked during 1949. Several factors, including population growth, combined to bring about this growth. The teenage population increased rapidly, and a larger proportion of the married women entered the labor market. Both groups have a more tenuous attachment to the labor force than most of the other workers and move in and out of the labor market in response to changes in their personal circumstances.

The number of year-round workers (that is, those who worked 50 to 52 weeks during the year) was 44.0 million, or 57 percent of the persons who worked in 1959, as compared to 36.2 million, or 60 percent of those who worked in 1949. These figures reveal a decrease in the year-round worker rate by 5 percent and reflect the entrance into the working force of many persons who want, or can obtain, only part-year work. Relatively more people worked less than 14 weeks or 40 to 49 weeks during 1959 than during 1949.

The number of weeks worked tends to vary with the age and family status of the individual. Over 80 percent of the men 14 years and over worked at some time in 1959. The middle age groups (30 to 44 years) had the highest work experience rate (97 percent) and 75 percent of those who worked in 1959 worked 50 to 52 weeks. Only 1 out of every 10 boys (ages 14 to 19) worked a full year.

For women, the proportion working at some time in 1959 was highest (60 percent) for those 20 to 24 years, declining in the childbearing years (25 to 34 years), and again rising to a second peak (52 percent) for women 45 to 54 years old. The proportion of women working 50 to 52 weeks in 1959 was highest for those between the ages of 40 and 64, who have fewer household responsibilities than women between 20 and 40 years of age.

YEAR LAST WORKED

The data on year last worked were obtained for the first time in the 1960 Census. They were derived from answers to the following question on the Household Questionnaire:

P26. When did he last work at all, even for a few days?
(Check one box)

Working now	<input type="checkbox"/>	1949 or earlier	<input type="checkbox"/>
In 1960	<input type="checkbox"/>		
In 1959	<input type="checkbox"/>	Never worked	<input type="checkbox"/>
1955 to 1958	<input type="checkbox"/>		
1950 to 1954	<input type="checkbox"/>		

The "year last worked" pertains to the most recent year in which a person did any work for pay or profit, or worked without pay on a family farm or in a family business. Active service in the Armed Forces is also included. Data derived from this item were tabulated for persons classified as not in the labor force and for persons classified as unemployed.

There are several reasons for introducing this item into the census. The data provide a means of evaluating the current applicability and significance of the inventory of the occupational skills for those persons not in the labor force, and the tabulations resulting from the cross-classifications of this information provide data on the demographic characteristics of the labor reserve.

Also, the data give some indication of the duration of unemployment for persons seeking jobs.

Labor Reserve Totals 21.9 Million

There were 56.4 million persons not in the labor force in 1960, of whom 21.9 million, or 39 percent, had some work experience in the past decade and are considered the labor reserve of the Nation. Of the total labor reserve, males comprised 31 percent and females 69 percent.

The largest portion of the male labor reserve was those 65 years old and over (2.9 million) which constituted 42 percent of the total. Only 30 percent had worked since 1958.

The female labor reserve consisted mostly (46 percent) of women in their 20's and early 30's and the majority of them had last worked between 1955 and 1958. Only 8 percent of the female labor reserve were over 64 years old compared to 42 percent for men, reflecting the different reasons men and women leave the labor force.

OCCUPATION, INDUSTRY, AND CLASS OF WORKER

The data on occupation, industry, and class of worker were derived from answers to the following questions on the Household Questionnaire:

P27. Occupation (Answer 1, 2, or 3)

1. This person last worked in 1949 or earlier ☐
This person has never worked ☐

OR

2. On active duty in the Armed Forces now ☐

OR

3. Worked in 1950 or later ☐ Answer a to e, below.
Describe this person's job or business last week, if any, and write in name of employer. If this person had no job or business last week, give information for last job or business since 1950.

a. For whom did he work?
.....
(Name of company, business, organization, or other employer)

b. What kind of business or industry was this?
Describe activity at location where employed.
.....
(For example: County junior high school, auto assembly plant, TV and radio service, retail supermarket, road construction, farm)

c. Is this primarily: (Check one box)

Manufacturing	<input type="checkbox"/>
Wholesale trade	<input type="checkbox"/>
Retail trade	<input type="checkbox"/>
Other (services, agriculture, government, construction, etc.)	<input type="checkbox"/>

d. What kind of work was he doing?
.....
(For example: 8th grade English teacher, paint sprayer, repairs TV sets, grocery checker, civil engineer, farmer, farm hand)

e. Was this person: (Check one box)

Employee of private company, business, or individual, for wages, salary, or commissions	<input type="checkbox"/>
Government employee (Federal, State, county, or local)	<input type="checkbox"/>
Self-employed in own business, professional practice, or farm	<input type="checkbox"/>
Working without pay in a family business or farm	<input type="checkbox"/>

In the 1960 Census, information on occupation, industry, and class of worker was collected for persons in the experienced civilian labor force as well as for persons not in the current labor force but who had worked some time during the period 1950 to April 1960. All three items related to one specific job held by the person. For an employed person, the information referred to the job he held during the reference week. If he was employed at two or more jobs, the job at which he worked the greatest number of hours during the reference week was reported. For experienced unemployed persons, i.e., unemployed persons who have had previous job experience, and for those not in the labor force, the information referred to the last job that had been held.

The classification systems used for the occupation and industry data in the 1960 Census described below were developed in consultation with many individuals, private organizations, government agencies, and, in particular the Interagency Occupational Classification Committee of the U.S. Bureau of the Budget.

Occupation

Classification system.—The occupational classification system is organized into 12 major groups. It consists of 494 items, 297 of which are specific occupation categories and the remainder are subgroupings (mainly on the basis of industry) of 13 of the occupation categories. The composition of the 297 categories is shown in the publication, U.S. Bureau of the Census, *1960 Census of Population, Classified Index of Occupations and Industries*, U.S. Government Printing Office, Washington, D.C., 1960.

For the presentation of occupation data in chapter C, a condensed set of categories is used for employed persons in certain tables and the 12 major groups for employed persons in other tables as well as for experienced unemployed persons. The condensed set consists of 31 categories for males and 23 categories for females (including the subdivisions by industry and class of worker). The composition of most of these categories in terms of specific occupation categories can be readily determined by reference to detailed occupation table 201 in chapter D. The following list shows the components of the condensed categories whose composition may not be readily determined:

Construction craftsmen.—Includes brickmasons, carpenters, cement and concrete finishers, electricians, excavating, grading, and road machinery operators, painters (construction and maintenance), paperhangers, pipefitters, plasterers, plumbers, roofers and slaters, stone masons, structural metal workers, tile setters.

Drivers and deliverymen.—Includes bus drivers, chauffeurs, deliverymen, routemen, taxicab drivers, truck and tractor drivers.

Medical and other health workers.—Includes chiropractors, dentists, dietitians, healers, medical and dental technicians, nutritionists, optometrists, osteopaths, pharmacists, physicians and surgeons, professional nurses, student professional nurses, psychologists, therapists, veterinarians.

Metal craftsmen, except mechanics.—Includes blacksmiths, boilermakers, coppermiths, die makers and setters, forgers and hammermen, heat treaters, annealers and temperers, machinists, metal jobsetters and molders, metal rollers and roll hands, millwrights, pattern and model makers (except paper), sheet metal workers, tinsmiths, toolmakers.

In chapter D several levels of classification are used. The most detailed classification appears in tables 201 to 203 and 256; for the purposes of these tables certain categories were combined and the list consists of 479 items (rather than 494). For the cross-tabulations by age, race, class of worker, year last worked for experienced workers not in the current labor force, and earnings, use has been made of intermediate occupational classifications with 161 categories for males and 70 for females (tables 204 to 208 and 257 and 258). The occupation stub for table 209, containing a cross-classification of occupation by industry, consists of 57 categories for males and 30 for females. Both of these levels represent selections and combinations of the items in the detailed system. The relationship between the detailed and intermediate

levels of classification is given in Lists A and B for males and females, respectively.

In the separation of "managers, officials, and proprietors (n.e.c.)" by class of worker into salaried and self-employed components (table 206), the small number of unpaid family workers in this occupation is included in the self-employed component. Since the data presented in the occupation tables refer only to civilians, the category "former members of the Armed Forces" shown in table 201 is limited to experienced unemployed persons whose last job was as a member of the Armed Forces.

The abbreviation n.e.c. used in the tables on occupation means "not elsewhere classified."

Relation to DOT classification.—The occupational classification of the Population Census is generally comparable with the system used in the *Dictionary of Occupational Titles* (DOT).¹⁴ The two systems, however, are designed to meet different needs and to be used under different circumstances. The DOT system is designed primarily for employment service needs, such as placement and counseling, and is ordinarily used to classify very detailed occupational information obtained in an interview with the worker himself. The census system, on the other hand, is designed for statistical purposes and is ordinarily used in the classification of limited occupational descriptions obtained in a self-enumeration questionnaire or in an interview with a member of the worker's family. As a result, the DOT system is much more detailed than the census system; and it also calls for many types of distinctions which cannot be made from census information.

More in White-Collar and Other Skilled Nonfarm Jobs

Shifts in occupational distribution over the past two decades have been toward a larger proportion of employed persons working in white-collar jobs and in the skilled manual categories and toward a smaller proportion in unskilled tasks and in farm jobs. For example, as compared with 1940, persons in professional occupations now constitute an increasing proportion of the total employed. Over the past decade alone, the number of persons in the professional category increased from 4.9 million to 7.2 million, a reflection of the movement toward increased technology in the economy, which has resulted in the need for more engineers, technicians, scientists, and other professional manpower.

Occupations in the professional group with the highest relative increases are designers (132 percent), aeronautical engineers (194 percent), industrial engineers (140 percent), mathematicians (348 percent), and psychologists (147 percent). The total number of technicians increased 142 percent over the decade, the largest increase occurring among the electrical and electronic technicians (379 percent). Several clerical occupations also registered substantial increases, namely, cashiers, office machine operators, receptionists, and secretaries.

A major change took place during the 10-year span in the managerial field. The number of managers, officials, and proprietors (n.e.c.) who are salaried increased 43 percent and this group is now numerically greater than the self-employed, which decreased 22 percent.

A rapid growth has also continued in the number of "clerical and kindred workers." Here the explanation may be, primarily, that rising amounts of paperwork have accompanied the increasing size and complexity of business firms. Furthermore, many of the expanding firms have found it necessary to add management services and other office functions in order to administer and coordinate advertising, research, sales, personnel, and similar phases of their activities, all of which require the services of such clerical workers as bookkeepers, office machine operators, secretaries, shipping clerks, stenographers, and typists.

¹⁴ See U.S. Department of Labor, Bureau of Employment Security, *Dictionary of Occupational Titles*, Second Edition, Vols. I and II, 1949, Government Printing Office, Washington, D.C., 20402.

List A.—INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR MALES (161 ITEMS) WITH COMPONENT DETAILED ITEMS

[Detailed occupation not shown where intermediate occupation consists of only one detailed occupation. "N.e.c." means not elsewhere classified]

- | | | |
|--|--|---|
| 1. Accountants and auditors | 28. Farmers and farm managers
Farmers (owners and tenants)
Farm managers | 43. Other clerical and kindred workers
Agents (n.e.c.)
Attendants and assistants, library
Attendants, physician's and dentist's office
Baggagemen, transportation
Bank tellers
Cashiers
Collectors, bill and account
Dispatchers and starters, vehicle
Express messengers and railway mail clerks
File clerks
Insurance adjusters, examiners, and investigators
Messengers and office boys
Office machine operators
Payroll and timekeeping clerks
Postal clerks
Receptionists
Secretaries
Shipping and receiving clerks
Stenographers
Stock clerks and storekeepers
Telegraph messengers
Telegraph operators
Telephone operators
Ticket, station, and express agents
Typists
Clerical and kindred workers (n.e.c.) |
| 2. Architects | | |
| 3. Artists and art teachers | 29. Officials and inspectors, State and local administration
Inspectors, State public administration
Inspectors, local public administration
Officials and administrators (n.e.c.), State public administration
Officials and administrators (n.e.c.), local public administration | 44. Insurance agents, brokers, and underwriters |
| 4. Authors, editors, and reporters
Authors
Editors and reporters | | 45. Real estate agents and brokers |
| 5. Chemists | 30. Other specified managers and officials
Buyers and department heads, store
Buyers and shippers, farm products
Conductors, railroad
Credit men
Floor men and floor managers, store
Inspectors, Federal public administration and postal service
Managers and superintendents, building
Officers, pilots, pursers, and engineers, ship
Officials and administrators (n.e.c.), Federal public administration and postal service
Officials, lodge, society, union, etc.
Postmasters
Purchasing agents and buyers (n.e.c.) | 46. Other specified sales workers
Advertising agents and salesmen
Auctioneers
Demonstrators
Hucksters and peddlers
Newsboys
Stock and bond salesmen
Salesmen and sales clerks (n.e.c.): |
| 6. Clergymen | | 47. Manufacturing |
| 7. College presidents, professors, and instructors (n.e.c.) | Managers, officials, and proprietors (n.e.c.)—salaried: | 48. Wholesale trade |
| 8. Dentists | 31. Manufacturing | 49. Retail trade |
| 9. Designers and draftsmen
Designers
Draftsmen | 32. Wholesale and retail trade
Wholesale trade
Food and dairy products stores
Eating and drinking places
General merchandise and limited price variety stores
Apparel and accessories stores
Furniture, housefurnishings, and equipment stores
Motor vehicles and accessories retailing
Gasoline service stations
Hardware, farm equipment, and building material retailing
Other retail trade | 50. Other industries (incl. not reported) |
| 10. Engineers, aeronautical | | 51. Bakers |
| 11. Engineers, civil | 33. Finance, insurance, and real estate
Banking and other finance
Insurance and real estate | 52. Blacksmiths, forgemen, and hammermen
Blacksmiths
Forgemen and hammermen |
| 12. Engineers, electrical | 34. Other industries (incl. not reported)
Construction
Transportation
Communications, and utilities and sanitary services
Business services
Automobile repair services and garages
Miscellaneous repair services
Personal services
All other industries (incl. not reported) | 53. Boilermakers |
| 13. Engineers, mechanical | Managers, officials, and proprietors (n.e.c.)—self-employed: | 54. Cabinetmakers and patternmakers
Cabinetmakers
Pattern and model makers, except paper |
| 14. Other technical engineers
Engineers, chemical
Engineers, industrial
Engineers, metallurgical, and metallurgists
Engineers, mining
Engineers, sales
Engineers (n.e.c.) | 35. Construction | 55. Carpenters |
| 15. Lawyers and judges | 36. Manufacturing | 56. Compositors and typesetters |
| 16. Musicians and music teachers | 37. Wholesale trade | 57. Cranemen, derrickmen, and hoistmen |
| 17. Natural scientists (n.e.c.)
Agricultural scientists
Biological scientists
Geologists and geophysicists
Mathematicians
Physicists
Miscellaneous natural scientists | 38. Eating and drinking places | 58. Electricians
Foremen (n.e.c.): |
| 18. Pharmacists | 39. Retail trade, except eating and drinking places
Food and dairy products stores
General merchandise and limited price variety stores
Apparel and accessories stores
Furniture, housefurnishings, and equipment stores
Motor vehicles and accessories retailing
Gasoline service stations
Hardware, farm equipment, and building material retailing
Other retail trade | 59. Manufacturing, durable goods
Metal industries
Machinery, including electrical
Transportation equipment
Other durable goods |
| 19. Physicians and surgeons | 40. Other industries (incl. not reported)
Transportation
Communications, and utilities and sanitary services
Banking and other finance
Insurance and real estate
Business services
Automobile repair services and garages
Miscellaneous repair services
Personal services
All other industries (incl. not reported) | 60. Manufacturing, nondurable goods (incl. not specified manufacturing)
Textile, textile products, and apparel
Other nondurable goods (incl. not specified manufacturing) |
| 20. Social scientists
Economists
Psychologists
Statisticians and actuaries
Miscellaneous social scientists | | 61. Nonmanufacturing industries (incl. not reported)
Construction
Railroads and railway express service
Transportation, except railroad
Communications, and utilities and sanitary services
Other industries (incl. not reported) |
| 21. Social, welfare, and recreation workers
Recreation and group workers
Social and welfare workers, except group | 41. Bookkeepers | 62. Linemen and servicemen, telegraph, telephone, and power |
| 22. Teachers, elementary schools | 42. Mail carriers | 63. Locomotive engineers |
| 23. Teachers, secondary schools | | 64. Locomotive firemen |
| 24. Teachers (n.e.c.) | | 65. Machinists and job setters
Job setters, metal
Machinists |
| 25. Technicians, medical and dental | | |
| 26. Technicians, electrical and electronic | | |
| 27. Other professional, technical, and kindred workers
Actors
Airplane pilots and navigators
Athletes
Chiropractors
Dancers and dancing teachers
Dietitians and nutritionists
Entertainers (n.e.c.)
Farm and home management advisors
Foresters and conservationists
Funeral directors and embalmers
Librarians
Nurses, professional
Nurses, student professional
Optometrists
Osteopaths
Personnel and labor relations workers
Photographers
Public relations men and publicity writers
Radio operators
Religious workers
Sports instructors and officials
Surveyors
Technicians, other engineering and physical sciences
Technicians (n.e.c.)
Therapists and healers (n.e.c.)
Veterinarians
Professional, technical, and kindred workers (n.e.c.) | | |

List A.—INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR MALES (161 ITEMS) WITH COMPONENT DETAILED ITEMS—Continued

- | | | |
|---|--|---|
| <p>66. Masons, tile setters, and stone cutters
Brickmasons, stonemasons, and tile setters
Stone cutters and stone carvers</p> <p>67. Mechanics and repairmen, airplane</p> <p>68. Mechanics and repairmen, automobile</p> <p>69. Mechanics and repairmen, radio and TV</p> <p>70. Other mechanics and repairmen, and loom fixers
Loom fixers
Mechanics and repairmen, air conditioning, heating, and refrigeration
Mechanics and repairmen, office machine
Mechanics and repairmen, railroad and car shop
Mechanics and repairmen, not elsewhere classified</p> <p>71. Millwrights</p> <p>72. Molders, metal</p> <p>73. Painters (construction), paperhangers, and glaziers
Glaziers
Painters, construction and maintenance
Paperhangers</p> <p>74. Plasterers and cement finishers
Cement and concrete finishers
Plasterers</p> <p>75. Plumbers and pipe fitters</p> <p>76. Printing craftsmen, except compositors and typesetters
Bookbinders
Electrotypers and stereotypers
Engravers, except photoengravers
Photoengravers and lithographers
Pressmen and plate printers, printing</p> <p>77. Shoemakers and repairers, except factory</p> <p>78. Stationary engineers</p> <p>79. Structural metal workers</p> <p>80. Tailors and furriers
Furriers
Tailors</p> <p>81. Tinsmiths, coppersmiths, and sheet metal workers</p> <p>82. Toolmakers, and die makers and setters</p> <p>83. Other craftsmen and kindred workers
Decorators and window dressers
Excavating, grading, and road machinery operators
Heat treaters, annealers, and temperers
Inspectors, scalers, and graders, log and lumber
Inspectors (n.e.c.), construction
Inspectors (n.e.c.), railroads and railway express
Inspectors (n.e.c.), transportation, except railroads, communications, and other public utilities
Inspectors (n.e.c.), other industries (incl. not reported)
Jewelers, watchmakers, goldsmiths, and silversmiths
Millers, grain, flour, feed, etc.
Motion picture projectionists
Opticians, and lens grinders and polishers
Piano and organ tuners and repairmen
Rollers and roll hands, metal
Roofers and slaters
Upholsterers
Craftsmen and kindred workers (n.e.c.)
Former members of the Armed Forces</p> <p>84. Apprentices
Apprentice auto mechanics
Apprentice bricklayers and masons
Apprentice carpenters
Apprentice electricians
Apprentice machinists and tool makers
Apprentice mechanics, except auto
Apprentice plumbers and pipe fitters
Apprentices, building trades (n.e.c.)
Apprentices, metalworking trades (n.e.c.)
Apprentices, printing trades
Apprentices, other specified trades
Apprentices, trade not specified</p> <p>85. Assemblers</p> <p>86. Attendants, auto service and parking</p> <p>87. Brakemen and switchmen, railroad
Brakemen, railroad
Switchmen, railroad</p> <p>88. Bus drivers</p> <p>89. Checkers, examiners, and inspectors, manufacturing</p> <p>90. Fillers, grinders, and polishers, metal</p> <p>91. Furnacemen, smeltermen, and pourers</p> | <p>92. Laundry and dry cleaning operatives</p> <p>93. Meat cutters, except slaughter and packing house</p> <p>94. Mine operatives and laborers (n.e.c.)
Coal mining
Crude petroleum and natural gas extraction
Mining and quarrying, except fuel</p> <p>95. Packers and wrappers (n.e.c.)</p> <p>96. Painters, except construction and maintenance</p> <p>97. Power station operators</p> <p>98. Sailors and deck hands</p> <p>99. Sawyers</p> <p>100. Spinners and weavers, textile
Spinners, textile
Weavers, textile</p> <p>101. Stationary firemen</p> <p>102. Taxicab drivers and chauffeurs</p> <p>103. Truck drivers and deliverymen
Delivery and routemen
Truck and tractor drivers</p> <p>104. Welders and flame-cutters</p> <p>105. Other specified operatives and kindred workers
Asbestos and insulation workers
Blasters and powdermen
Boatmen, canalmen, and lock keepers
Chainmen, rodmen, and axmen, surveying
Conductors, bus and street railway
Dressmakers and seamstresses, except factory
Dyers
Fruit, nut, and vegetable graders and packers, except factory
Graders and sorters, manufacturing
Heaters, metal
Knitters, loopers, and toppers, textile
Milliners
Motormen, mine, factory, logging camp, etc.
Motormen, street, subway, and elevated railway
Oilers and greasers, except auto
Photographic process workers
Sewers and stitchers, manufacturing</p> <p>Operatives and kindred workers (n.e.c.):</p> <p>106. Sawmills, planing mills, and miscellaneous wood products
Sawmills, planing mills, and mill work
Miscellaneous wood products</p> <p>107. Furniture and fixtures</p> <p>108. Stone, clay, and glass products
Glass and glass products
Cement, and concrete, gypsum, and plaster products
Structural clay products
Pottery and related products
Miscellaneous nonmetallic mineral and stone products</p> <p>109. Primary metal industries
Blast furnaces, steel works, and rolling and finishing mills
Other primary iron and steel industries
Primary nonferrous industries</p> <p>110. Fabricated metal industries (incl. not specified metal)
Cutlery, hand tools, and other hardware
Fabricated structural metal products
Miscellaneous fabricated metal products
Not specified metal industries</p> <p>111. Machinery, except electrical
Farm machinery and equipment
Office, computing, and accounting machines
Miscellaneous machinery</p> <p>112. Electrical machinery, equipment, and supplies</p> <p>113. Motor vehicles and motor vehicle equipment</p> <p>114. Transportation equipment, except motor vehicle
Aircraft and parts
Ship and boat building and repairing
Railroad and miscellaneous transportation equipment</p> | <p>Operatives and kindred workers (n.e.c.)—Con.</p> <p>115. Other durable goods
Professional equipment and supplies
Photographic equipment and supplies
Watches, clocks, and clockwork-operated devices
Miscellaneous manufacturing industries</p> <p>116. Food and kindred products
Meat products
Dairy products
Canning and preserving fruits, vegetables, and sea foods
Grain-mill products
Bakery products
Confectionery and related products
Beverage industries
Miscellaneous food preparations and kindred products
Not specified food industries</p> <p>117. Yarn, thread, and fabric mills</p> <p>118. Knitting and other textile mill products
Knitting mills
Dyeing and finishing textiles, except wool and knit goods
Floor coverings, except hard surface
Miscellaneous textile mill products</p> <p>119. Apparel and other fabricated textile products
Apparel and accessories
Miscellaneous fabricated textile products</p> <p>120. Paper and allied products
Pulp, paper, and paperboard mills
Paperboard containers and boxes
Miscellaneous paper and pulp products</p> <p>121. Chemicals and allied products
Synthetic fibers
Drugs and medicines
Paints, varnishes and related products
Miscellaneous chemicals and allied products</p> <p>122. Other nondurable goods
Tobacco manufactures
Newspaper publishing and printing
Printing, publishing, and allied industries, except newspapers
Petroleum refining
Miscellaneous petroleum and coal products
Rubber products
Miscellaneous plastic products
Leather: tanned, curried, and finished
Footwear, except rubber
Leather products, except footwear</p> <p>123. Not specified manufacturing industries</p> <p>124. Transportation, communication, and other public utilities
Railroads and railway express service
Transportation, except railroad
Communications, and utilities and sanitary services</p> <p>125. Wholesale and retail trade</p> <p>126. Other industries (incl. not reported)
Construction
Business and repair services
Personal services
Public administration
All other industries (incl. not reported)</p> <p>127. Private household workers
Baby sitters, private household
Housekeepers, private household—living in
Housekeepers, private household—living out
Laundresses, private household—living in
Laundresses, private household—living out
Private household workers (n.e.c.)—living in
Private household workers (n.e.c.)—living out</p> <p>128. Barbers</p> <p>129. Charwomen, janitors, and porters
Charwomen and cleaners
Janitors and sextons
Porters</p> <p>130. Cooks, except private household</p> <p>131. Elevator operators</p> <p>132. Firemen, fire protection</p> <p>133. Guards and watchmen
Guards, watchmen, and doorkeepers
Watchmen (crossing) and bridge tenders</p> <p>134. Policemen, sheriffs, and marshals
Marshals and constables
Policemen and detectives, government
Policemen and detectives, private
Sheriffs and bailiffs</p> <p>135. Waiters, bartenders, and counter workers
Bartenders
Counter and fountain workers
Waiters</p> |
|---|--|---|

List A.—INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR MALES (161 ITEMS) WITH COMPONENT DETAILED ITEMS—Continued

- | | | |
|---|--|---|
| <p>136. Other service workers, except private household
Attendants, hospital and other institution
Attendants, professional and personal service (n.e.c.)
Attendants, recreation and amusement
Bootblacks
Boarding and lodging house keepers
Chambermaids and maids, except private household
Hairdressers and cosmetologists
Housekeepers and stewards, except private household
Kitchen workers (n.e.c.), except private household
Midwives
Practical nurses
Ushers, recreation and amusement
Service workers, except household (n.e.c.)</p> <p>137. Farm laborers, unpaid family workers</p> <p>138. Farm laborers, except unpaid, and farm foremen
Farm foremen
Farm laborers, wage workers
Farm service laborers, self-employed</p> <p>139. Fishermen and oystermen</p> <p>140. Longshoremen and stevedores</p> <p>141. Lumbermen, raftsmen, and wood choppers</p> <p>142. Other specified laborers
Carpenters' helpers, except logging and mining
Garage laborers, and car washers and greasers
Gardeners, except farm, and grounds-keepers
Teamsters
Truck drivers' helpers
Warehousemen (n.e.c.)</p> <p>Laborers (n.e.c.):</p> <p>143. Furniture, saw and planing mills, and miscellaneous wood products
Furniture and fixtures
Sawmills, planing mills, and millwork
Miscellaneous wood products</p> | <p>Laborers (n.e.c.)—Con.
144. Stone, clay, and glass products
Glass and glass products
Cement, and concrete, gypsum, and plaster products
Structural clay products
Pottery and related products
Miscellaneous nonmetallic mineral and stone products</p> <p>145. Primary metal industries
Blast furnaces, steel works, and rolling and finishing mills
Other primary iron and steel industries
Primary nonferrous industries</p> <p>146. Fabricated metal industries (incl. not specified metal)
Cutlery, hand tools, and other hardware
Fabricated structural metal products
Miscellaneous fabricated metal products
Not specified metal industries</p> <p>147. Machinery, including electrical
Farm machinery and equipment
Office, computing, and accounting machines
Miscellaneous machinery
Electrical machinery, equipment, and supplies</p> <p>148. Transportation equipment
Motor vehicles and motor vehicle equipment
Aircraft and parts
Ship and boat building and repairing
Railroad and miscellaneous transportation equipment</p> <p>149. Other durable goods
Professional equipment and supplies
Photographic equipment and supplies
Watches, clocks, and clockwork-operated devices
Miscellaneous manufacturing industries</p> <p>150. Food and kindred products
Meat products
Dairy products
Canning and preserving fruits, vegetables, and sea foods
Grain-mill products</p> | <p>Laborers (n.e.c.)—Con.
150. Food and kindred products—Con.
Bakery products
Confectionery and related products
Beverage industries
Miscellaneous food preparations and kindred products
Not specified food industries</p> <p>151. Textile mill products and apparel
Yarn, thread, and fabric mills
Other textile mill products
Apparel and other fabricated textile products</p> <p>152. Chemicals and allied products
Synthetic fibers
Drugs and medicines
Paints, varnishes, and related products
Miscellaneous chemicals and allied products</p> <p>153. Other nondurable goods
Tobacco manufactures
Pulp, paper, and paperboard mills
Paperboard containers and boxes
Miscellaneous paper and pulp products
Printing, publishing, and allied industries
Petroleum refining
Miscellaneous petroleum and coal products
Rubber and miscellaneous plastic products
Leather and leather products</p> <p>154. Not specified manufacturing industries</p> <p>155. Construction</p> <p>156. Railroads and railway express service</p> <p>157. Transportation, except railroad</p> <p>158. Communications, and utilities and sanitary services</p> <p>159. Wholesale and retail trade</p> <p>160. Other industries (incl. not reported)
Business and repair services
Personal services
Public administration
All other industries (incl. not reported)</p> <p>161. Occupation not reported</p> |
|---|--|---|

List B.—INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR FEMALES (70 ITEMS) WITH COMPONENT DETAILED ITEMS

[Detailed occupation not shown where intermediate occupation consists of only one detailed occupation. "N.e.c." means not elsewhere classified]

- | | | |
|---|--|---|
| <p>1. Accountants and auditors</p> <p>2. Actors, dancers, and entertainers (n.e.c.)
Actors
Dancers and dancing teachers
Entertainers (n.e.c.)</p> <p>3. Artists and art teachers</p> <p>4. Authors, editors, and reporters
Authors
Editors and reporters</p> <p>5. College presidents, professors, and instructors (n.e.c.)</p> <p>6. Designers and draftsmen
Designers
Draftsmen</p> <p>7. Dietitians and nutritionists</p> <p>8. Lawyers and judges</p> <p>9. Librarians</p> <p>10. Musicians and music teachers</p> <p>11. Natural scientists
Agricultural scientists
Biological scientists
Chemists
Geologists and geophysicists
Mathematicians
Physicists
Miscellaneous natural scientists</p> <p>12. Nurses, professional</p> <p>13. Nurses, student professional</p> <p>14. Physicians and surgeons</p> <p>15. Social scientists
Economists
Psychologists
Statisticians and actuaries
Miscellaneous social scientists</p> <p>16. Social, welfare, and recreation workers
Recreation and group workers
Social and welfare workers, except group</p> <p>17. Teachers, elementary schools</p> | <p>18. Teachers, secondary schools</p> <p>19. Teachers (n.e.c.)</p> <p>20. Technicians, medical and dental</p> <p>21. Therapists and healers (n.e.c.)</p> <p>22. Other professional, technical, and kindred workers
Airplane pilots and navigators
Architects
Athletes
Chiropractors
Clergymen
Dentists
Engineers, aeronautical
Engineers, chemical
Engineers, civil
Engineers, electrical
Engineers, industrial
Engineers, mechanical
Engineers, metallurgical, and metallurgists
Engineers, mining
Engineers, sales
Engineers (n.e.c.)
Farm and home management advisors
Foresters and conservationists
Funeral directors and embalmers
Optometrists
Osteopaths
Personnel and labor relations workers
Pharmacists
Photographers
Public relations men and publicity writers
Radio operators
Religious workers
Sports instructors and officials
Surveyors
Technicians, electrical and electronic
Technicians, other engineering and physical sciences
Technicians (n.e.c.)
Veterinarians
Professional, technical, and kindred workers (n.e.c.)</p> <p>23. Farmers and farm managers
Farmers (owners and tenants)
Farm managers</p> | <p>24. Specified managers and officials
Buyers and department heads, stores
Buyers and shippers, farm products
Conductors, railroad
Credit men
Floor men and floor managers, store
Inspectors, Federal public administration and postal service
Inspectors, State public administration
Inspectors, local public administration
Managers and superintendents, building
Officers, pilots, purser, and engineers, ship
Officials and administrators (n.e.c.), Federal public administration and postal service
Officials and administrators (n.e.c.), State public administration
Officials and administrators (n.e.c.), local public administration
Officials, lodge, society, union, etc.
Postmasters
Purchasing agents and buyers (n.e.c.)
Managers, officials, and proprietors (n.e.c.)—salaried:</p> <p>25. Wholesale and retail trade
Wholesale trade
Food and dairy products stores
Eating and drinking places
General merchandise and limited price variety stores
Apparel and accessories stores
Furniture, housefurnishings, and equipment stores
Motor vehicles and accessories retailing
Gasoline service stations
Hardware, farm equipment, and building materials retailing
Other retail trade</p> <p>26. Other industries (incl. not reported)
Construction
Manufacturing
Transportation
Communications, and utilities and sanitary services
Banking and other finance
Insurance and real estate
Business services</p> |
|---|--|---|

List B.—INTERMEDIATE OCCUPATIONAL CLASSIFICATION FOR FEMALES (70 ITEMS) WITH COMPONENT DETAILED ITEMS—Continued

- Managers, officials, and proprietors (n.e.c.)—salaried—Con.
26. Other industries (incl. not reported)—Con.
Automobile repair services and garages
Miscellaneous repair services
Personal services
All other industries (incl. not reported)
- Managers, officials, and proprietors (n.e.c.)—self-employed:
27. Eating and drinking places
28. Wholesale and retail trade, except eating and drinking places
Wholesale trade
Food and dairy products stores
General merchandise and limited price variety stores
Apparel and accessories stores
Furniture, housefurnishings, and equipment stores
Motor vehicles and accessories retailing
Gasoline service stations
Hardware, farm equipment, and building material retailing
Other retail trade
29. Other industries (incl. not reported)
Construction
Manufacturing
Transportation
Communications, and utilities and sanitary services
Banking and other finance
Insurance and real estate
Business services
Automobile repair services and garages
Miscellaneous repair services
Personal services
All other industries (incl. not reported)
30. Bookkeepers
31. Cashiers
32. Office machine operators
33. Secretaries
34. Stenographers
35. Telephone operators
36. Typists
37. Other clerical and kindred workers
Agents (n.e.c.)
Attendants and assistants, library
Attendants, physician's and dentist's office
Baggage men, transportation
Bank tellers
Collectors, bill and account
Dispatchers and starters, vehicle
Express messengers and railway mail clerks
File clerks
Insurance adjusters, examiners, and investigators
Mail carriers
Messengers and office boys
Payroll and timekeeping clerks
Postal clerks
Receptionists
Shipping and receiving clerks
Stock clerks and storekeepers
Telegraph messengers
Telegraph operators
Ticket, station, and express agents
Clerical and kindred workers (n.e.c.)
38. Insurance and real estate agents and brokers
Insurance agents, brokers, and underwriters
Real estate agents and brokers
39. Other specified sales workers
Advertising agents and salesmen
Auctioneers
Demonstrators
Hucksters and peddlers
Newsboys
Stock and bond salesmen
40. Salesmen and sales clerks (n.e.c.), retail trade
41. Salesmen and sales clerks (n.e.c.), except retail trade
Manufacturing
Wholesale trade
Other industries (incl. not reported)
42. Foremen (n.e.c.)
Construction
Metal industries
Machinery, including electrical
Transportation equipment
Other durable goods
Textiles, textile products, and apparel
42. Foremen (n.e.c.)—Con.
Other nondurable goods (incl. not specified manufacturing)
Railroads and railway express service
Transportation, except railroad
Communications, and utilities and sanitary services
Other industries (incl. not reported)
43. Other craftsmen and kindred workers (Includes all occupations in the major group "Craftsmen, foremen, and kindred workers" except "Foremen (n.e.c.)"; see table 201 for detailed listing.)
44. Assemblers
45. Checkers, examiners, and inspectors, manufacturing
46. Dressmakers and seamstresses, except factory
47. Laundry and dry cleaning operatives
48. Spinners and weavers, textile
Spinners, textile
Weavers, textile
49. Other specified operatives and kindred workers (Includes all occupations in the major group "Operatives and kindred workers" except those included in items 44, 45, 46, 47, and 48, and "Operatives and kindred workers (n.e.c.)"; see table 201 for detailed listing.)
- Operatives and kindred workers (n.e.c.):
50. Machinery, including electrical
Farm machinery and equipment
Office, computing, and accounting machines
Miscellaneous machinery
Electrical machinery, equipment, and supplies
51. Other durable goods
Sawmills, planing mills, and mill work
Miscellaneous wood products
Furniture and fixtures
Glass and glass products
Cement, and concrete, gypsum, and plaster products
Structural clay products
Pottery and related products
Miscellaneous nonmetallic mineral and stone products
Blast furnaces, steel works, and rolling and finishing mills
Other primary iron and steel industries
Primary nonferrous industries
Cutlery, hand tools, and other hardware
Fabricated structural metal products
Miscellaneous fabricated metal products
Not specified metal industries
Motor vehicles and motor vehicle equipment
Aircraft and parts
Ship and boat building and repairing
Railroad and miscellaneous transportation equipment
Professional equipment and supplies
Photographic equipment and supplies
Watches, clocks, and clockwork-operated devices
Miscellaneous manufacturing industries
52. Food and kindred products
Meat products
Dairy products
Canning and preserving fruits, vegetables, and sea foods
Grain-mill products
Bakery products
Confectionery and related products
Beverage industries
Miscellaneous food preparations and kindred products
Not specified food industries
53. Textile mill products
Knitting mills
Dyeing and finishing textiles, except wool and knit goods
Floor coverings, except hard surface
Yarn, thread, and fabric mills
Miscellaneous textile mill products
54. Apparel and other fabricated textile products
Apparel and accessories
Miscellaneous fabricated textile products
55. Other nondurable goods (incl. not specified manufacturing)
Tobacco manufactures
Pulp, paper, and paperboard mills
Paperboard containers and boxes
Miscellaneous paper and pulp products
- Operatives and kindred workers (n.e.c.)—Con.
55. Other nondurable goods (incl. not specified manufacturing)—Con.
Newspaper publishing and printing
Printing, publishing and allied industries, except newspapers
Synthetic fibers
Drugs and medicines
Paints, varnishes, and related products
Miscellaneous chemicals and allied products
Petroleum refining
Miscellaneous petroleum and coal products
Rubber products
Miscellaneous plastic products
Leather: tanned, curried, and finished
Footwear, except rubber
Leather products, except footwear
Not specified manufacturing industries
56. Nonmanufacturing industries (incl. not reported)
Construction
Railroads and railway express service
Transportation, except railroad
Communications, and utilities and sanitary services
Wholesale and retail trade
Business and repair services
Personal services
Public administration
All other industries (incl. not reported)
57. Private household workers—living in
Baby sitters—living in
Housekeepers—living in
Laundresses—living in
Private household workers (n.e.c.)—living in
58. Private household workers—living out
Baby sitters—living out
Housekeepers—living out
Laundresses—living out
Private household workers (n.e.c.)—living out
59. Attendants, hospital and other institution
60. Charwomen, janitors, and porters
Charwomen and cleaners
Janitors and sextons
Porters
61. Cooks, except private household
62. Hairdressers and cosmetologists
63. Housekeepers and stewards, except private household
64. Practical nurses and midwives
Midwives
Practical nurses
65. Waiters, bartenders, and counter workers
Bartenders
Counter and fountain workers
Waiters
66. Other service workers, except private household
Attendants, professional and personal service (n.e.c.)
Attendants, recreation and amusement
Barbers
Boarding and lodging house keepers
Bootblacks
Chambermaids and maids, except private household
Elevator operators
Kitchen workers (n.e.c.), except private household
Firemen, fire protection
Guards, watchmen, and doorkeepers
Marshals and constables
Police men and detectives, government
Police men and detectives, private
Sheriffs and bailiffs
Watchmen (crossing) and bridge tenders
Ushers, recreation and amusement
Service workers, except private household (n.e.c.)
67. Farm laborers, unpaid family workers
68. Farm laborers, except unpaid family workers and farm foremen
Farm foremen
Farm laborers, wage workers
Farm service laborers, self-employed
69. Laborers, except farm and mine (Includes major group "Laborers, except farm and mine"; see table 201 for detailed listing.)
70. Occupation not reported

The number of "sales workers" has grown at a more rapid rate than the average for other categories, partly because rising income levels have led to increased demand for those types of products (such as automobiles, electrical appliances, clothing) and services such as insurance and investments that are usually sold only after the salesman has spent considerable time with the customer. Also, it appears that over the past decade an increasing proportion of sales jobs were held on a part-time basis. This change has evidently resulted in an increase in the total number of persons in sales work.

"Operatives and kindred workers"—the largest major occupational group—increased by about 700,000 over the decade, but nonetheless dropped slightly as a percentage of the total employed. This decline in the group's share of total employment probably reflects the increasing use of labor-saving devices, including automated machinery, in industry, which reduces the operative manpower required.

The number of persons in the "private household workers" group (which consists almost entirely of females) increased from 1950 to 1960, after having dropped sharply in the preceding decade. Much of the recent increase has occurred in the number of baby sitters. However, the proportion of the total workers employed in this type of work declined during the 1950's, as better-paying jobs developed in other sectors. For example, females in the "service workers, except private household" group (which contains a number of detailed occupation groups to which persons with experience as private household workers might readily transfer) continued to rise as a proportion of the total employed.

The number of persons in the categories "farmers and farm managers" and "farm laborers and farm foremen" declined sharply as both the average size of farm and the extent of mechanization in agriculture increased. Farmers and farm managers had the largest decrease both numerically and proportionately of any major group. The decrease was 1,799,474, or 42 percent. Along with this, farm laborers and foremen decreased nearly 1 million, or 38 percent.

The category "laborers, except farm and mine" has dropped steadily since 1940 as a proportion of the total employed. Moreover, in the 1950-60 decade, it has dropped in absolute numbers as well. Again, this change is probably a consequence, in part, of automation and the displacement of a large number of routine laboring tasks by jobs requiring greater skill and training. "Craftsman, foreman, and kindred workers," on the other hand, have increased slightly as a proportion of the total employed.

The unemployment rate for males by major occupation group ranged from 0.8 percent for farmers and farm managers, to 12 percent for laborers, except farm and mine.

The group with the highest median earnings for men in 1959 was managers, officials, and proprietors, except farm. The median earnings for this group were \$6,604. Professional, technical, and kindred workers was the major occupation group with the highest income for women and for nonwhite persons.

There were over 15 million women who had worked since 1950 but were not in the labor force during the census period. The bulk of these were formerly clerical and kindred workers (4.7 million), operatives and kindred workers (2.5 million), and service workers, except private household (2.2 million). Men in this category totaled 6.9 million, of which the two largest groups were craftsmen, foremen, and kindred workers amounting to 1.1 million and operatives and kindred workers, 1.2 million.

Industry

Classification system.—The industrial classification system developed for the 1960 Census is organized into 13 major industry groups and consists of 151 items (two of which are the government and private subgroupings of the category "educational

services"). The composition of each specific category is shown in the above-mentioned *Classified Index of Occupations and Industries*.

Several different levels of classification are used in this report. The most detailed industry list appears in chapter D, tables 210, 211, and 259; two combinations were made for the purposes of these tables and thus the list consists of 149 categories. In chapter C a 40-item condensed grouping is used. For cross-tabulations by age, race, class of worker, and earnings, in chapter D an intermediate industrial classification of 71 categories has been used (tables 212 to 215 and 260 and 261). The industry list for table 209 consists of 43 categories. The industry list for nonwhite workers in table 215 consists of 42 categories for male and 28 for female. These intermediate classifications represent selections and combinations of the categories in the detailed system. The relationship between the 71- and 149-category levels of classification is shown in List C.

Relation to Standard Industrial Classification.—List C also shows for each Population Census category the code designation of the similar category or categories in the Standard Industrial Classification (SIC).²⁵ This relationship is presented here for general information purposes only and does not imply complete comparability. The SIC, which was developed under the sponsorship of the U.S. Bureau of the Budget, is designed for the classification of industry reports from establishments. These reports, by their nature and degree of detail, produce considerably different data on industry from those obtained from household enumeration such as the Census of Population. As a result, some of the distinctions called for in the SIC cannot be made in the 1960 Census.

Furthermore, the data from the Census of Population are designed to meet different needs from those met by the establishment data. The allocation of government workers represents perhaps the most basic difference between the two systems. The SIC classifies all government agencies in a single major group. In the Population Census system, however, the category "public administration" includes only those activities which are uniquely governmental functions, such as legislative and judicial activities and most of the activities in the executive agencies. Government agencies engaged in educational and medical services and in activities commonly carried on also by private enterprises, such as transportation and manufacturing, are classified in the appropriate industrial category. For example, persons employed by a hospital are classified in the hospitals group, regardless of whether they are paid from private or public funds. Information on the total number of government workers appears in the tables on class of worker.

Relation to certain occupation groups.—In the Population Census classification systems, the industry category "agriculture" is somewhat more inclusive than the total of the two major occupation groups, "farmers and farm managers" and "farm laborers and foremen." The industry category also includes (a) persons employed on farms in occupations such as truck driver, mechanic, and bookkeeper, and (b) persons engaged in agricultural activities other than strictly farm operation, such as crop dusting or spraying, cotton ginning, and landscape gardening. Similarly, the industry category "private households" is somewhat more inclusive than the major occupation group "private household workers." In addition to the baby sitters, housekeepers, laundresses, and miscellaneous types of domestic workers covered by the major occupation group, the industry category includes persons in occupations such as chauffeur, gardener, and secretary, if they are employed by private families.

²⁵ See Executive Office of the President, Bureau of the Budget, *Standard Industrial Classification Manual* (1957). For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402.

Decline in Agriculture, Increase in Service Industries, Especially Education

The changes in industrial distribution in the United States over the 1950-60 decade largely continued the changes of the 1940-50 decade. The number of workers engaged in "agriculture" showed a sharp decline, falling from 8.4 million in 1940 to 6.9 million in 1950 and 4.3 million in 1960—a result of the continuing trend toward largescale, highly mechanized agricultural operations. The number of males employed in agriculture declined sharply from 7.9 million in 1940 to 6.3 million in 1950 and 3.9 million in 1960, whereas the number of females remained small over this period, varying from 0.5 million to 0.6 million and 0.4 million, respectively, at the three census dates. As a result, however, females have constituted an increasing proportion of agricultural employment—6 percent in 1940, 9 percent in 1950, and 10 percent in 1960. The numerical decline in agricultural workers was greatest in the South. In this and other respects, the economy of the South has been shifting toward more nearly the same industrial distribution as that of the rest of the country.

In industries other than agriculture, which now comprise 93 percent of the total employed population in the country, the number of employed persons rose from 36.6 million in 1940 to 49.4 million in 1950 and 60.4 million in 1960. In most of the nonagricultural industries, employment has increased over the past two decades along with the increase in population and the resulting growth in the labor force but at varying rates.

Manufacturing registered a 21-percent increase, representing a growth of 3.2 million in the number of workers. Durable goods manufacturing showed a greater proportionate increase (29 percent) than nondurable goods (14 percent) over the ten-year period.

The greatest job growth has occurred in several of the service industries. For example, "educational services," although increasing only moderately over the 1940-50 decade, jumped from 20.8 million in 1950 to 33.9 million in 1960, reflecting the sharp increase in the number of school-age children. The number of persons employed in the fields of finance, insurance, and real estate grew steadily from 1.5 million in 1940 to 2.7 million in 1960; and those employed in "business services" increased from 200,000 in 1940 to 800,000 in 1960, the sharper increase occurring over the decade 1950 to 1960. The other professional services also showed greater than average percentage increases.

In a few industries, employment actually decreased numerically over the 1950-60 decade. The number employed in the "textile mill products" industry, for example, dropped from 1.2 million in 1950 to 1.0 million in 1960; since 1940 it has represented a constantly decreasing proportion of the total employed. Longer wearing life of some synthetic fibers, improvements in mechanization, reduction in the processes necessary to prepare some types of fibers, and the partial substitution of paper for fabric in some products (napkins, towels) are some of the causes of the drop in employment in this industry. Some other industries showing declines over the decade in the number employed were: "Furniture, and lumber and wood products," which has been adversely affected to a considerable extent by the inroads made by products other than wood; and "railroads and railway express service," which to an increasingly greater extent has had to contend with airline, private automobile, bus, and trucking competition.

About 2 million of the 17½ million Americans who worked in manufacturing at the time of the 1960 Census were in clerical occupations, 1½ million were in professional occupations, and 900,000 and 660,000 were in managerial and sales occupations, respectively. Thus, close to 5 million, or almost 30 percent, of the persons working in manufacturing in 1960 were in white-collar occupations. The 1950 Census reports show that, a decade ago,

less than 25 percent of the workers in manufacturing were in white-collar occupations.

Among the various types of manufacturing activity, there were substantial differences in occupational structure in 1960. For example, better than 1 out of every 5 persons employed in the manufacture of aircraft and parts was in the professional category. On the other hand, only about 1 in 100 workers in the manufacture of apparel and other fabricated textile products was in a professional occupation. For manufacturing as a whole, professionals constituted about 1 out of every 13 workers.

The 1960 Census counted 854,000 employed male professional engineers in the United States. Approximately 55 percent of these engineers were in manufacturing, 11 percent in construction, and 8 percent in public administration. Among the 15 specific manufacturing groups separately identified in this report, the largest number of male engineers (102,000) was in electrical machinery, equipment, and supplies.

The median earnings in 1959 of the experienced civilian labor force varied considerably among the industries. For men, the median earnings were \$4,600, with the highest (\$7,500) occurring in the legal, engineering, and miscellaneous professional services group. Petroleum and coal products (\$6,500), communications (\$6,400), aircraft and parts manufacturing (\$6,000), and air transportation (\$5,900) were among the industries showing the highest median earnings for men in 1959. Only five industries showed median earnings for men of less than \$3,000—forestry and fisheries (\$2,900), hotels and lodging places (\$2,700), logging (\$2,000), agriculture (\$1,800), and private households (\$900). For women, the median earnings amounted to half that of men (\$2,300). A major factor contributing to this relationship was the differential between the sexes in regard to full-year work. Only 50 percent of the women worked 50 to 52 weeks as contrasted with 69 percent of the men. Women's median earnings were highest in railroads and railway express (\$4,400), and in the manufacture of aircraft and parts (\$4,200), petroleum and coal products (\$4,100), and motor vehicles and motor vehicle equipment (\$4,100). The industries showing the lowest average earnings for females were private households (\$700), agriculture (\$700), eating and drinking places (\$1,200), and hotels and lodging places (\$1,400).

Class of Worker

The class-of-worker information refers to the same job as the occupation and industry information. The assignment of a person to a particular class-of-worker category is basically independent, however, of the occupation or industry in which he worked. The classification by class of worker consists of four categories which are defined as follows:

1. *Private wage and salary workers.*—Persons who worked for a private employer for wages, salary, commission, tips, pay-in-kind, or at piece rates.

2. *Government workers.*—Persons who worked for any governmental unit (Federal, State, local, or international), regardless of the activity which the particular agency carried on.

3. *Self-employed workers.*—Persons who worked for profit or fees in their own business, profession, or trade, or who operated a farm either as an owner or tenant. Included here are the owner-operators of large stores and manufacturing establishments as well as small merchants, independent craftsmen and professional men, farmers, peddlers, and other persons who conducted enterprises of their own. Persons paid to manage businesses owned by other persons or by corporations, on the other hand, are classified as private wage and salary workers (or, in some few cases, as government workers).

4. *Unpaid family workers.*—Persons who worked without pay on a farm or in a business operated by a person to whom they are related by blood or marriage. The great majority of unpaid family workers are farm laborers.

The relatively small number of employed persons for whom class of worker was not reported have been included among

**List C.—RELATIONSHIPS AMONG INDUSTRIAL CLASSIFICATION SYSTEMS USED IN THE
1960 CENSUS OF POPULATION**

[Figures in parentheses in the third column are code designations in the Standard Industrial Classification; see text for explanation]

Condensed classification—40 items	Intermediate classification—71 items	Detailed classification—149 items
Agriculture.....	Agriculture.....	Agriculture (01, 02, 07 except 0713).
Forestry and fisheries.....	Forestry and fisheries.....	{Forestry (08). Fisheries (09).
Mining.....	Mining.....	{Metal mining (10). Coal mining (11, 12). Crude petroleum and natural gas extraction (13). Nonmetallic mining and quarrying, except fuel (14).
Construction.....	Construction.....	Construction (15-17).
Furniture and lumber and wood products.....	{Logging..... Sawmills, planing mills, millwork and miscellaneous wood products..... Furniture and fixtures.....	{Logging (241). Sawmills, planing mills and millwork (242, 243). Miscellaneous wood products (244). Furniture and fixtures (245).
Primary metal industries.....	{Primary iron and steel industries..... Primary nonferrous industries.....	{Blast furnaces, steel works, and rolling and finishing mills (3312, 3313). Other primary iron and steel industries (3315-3317, 332, 3391, 3399 1). Primary nonferrous industries (333-339, 3392, 3399 1).
Fabricated metal industries (incl. not specified metal).	Fabricated metal industries (incl. not specified metal).....	{Cutlery, hand tools and other hardware (342). Fabricated structural metal products (344). Miscellaneous fabricated metal products (341, 343, 345-349, 19 except 194). Not specified metal industries. ¹
Machinery, except electrical.....	Machinery, except electrical.....	{Farm machinery and equipment (352). Office, computing, and accounting machines (357). Miscellaneous machinery (351, 353-356, 358, 359).
Electrical machinery, equipment, and supplies.....	Electrical machinery, equipment, and supplies.....	Electrical machinery, equipment, and supplies (36).
Motor vehicles and motor vehicle equipment.....	Motor vehicles and motor vehicle equipment.....	Motor vehicles and motor vehicle equipment (371).
Transportation equipment, except motor vehicles.....	{Aircraft and parts..... Other transportation equipment.....	{Aircraft and parts (372). Ship and boat building and repairing (373). Railroad and miscellaneous transportation equipment (374, 375, 379).
Other durable goods.....	{Stone, clay, and glass products..... All other durable goods.....	{Glass and glass products (321-323). Cement, and concrete, gypsum, and plaster products (324, 327). Structural clay products (325). Pottery and related products (326). Miscellaneous nonmetallic mineral and stone products (328, 329). Professional equipment and supplies (381-385, 194). Photographic equipment and supplies (386). Watches, clocks, and clockwork-operated devices (387). Miscellaneous manufacturing industries (39).
Food and kindred products.....	{Meat products..... Bakery products..... Other food industries.....	{Meat products (201). Bakery products (205). Dairy products (202). Canning and preserving fruits, vegetables, and sea foods (203). Grain-mill products (204, 0713). Confectionery and related products (207). Beverage industries (208). Miscellaneous food preparations and kindred products (200, 209). Not specified food industries. ²
Textile mill products.....	{Knitting mills..... Yarn, thread, and fabric mills..... Other textile mill products.....	{Knitting mills (225). Yarn, thread, and fabric mills (221-224, 228). Dyeing and finishing textiles, except wool and knit goods (226). Floor coverings, except hard surface (227). Miscellaneous textile mill products (229).
Apparel and other fabricated textile products.....	Apparel and other fabricated textile products.....	{Apparel and accessories (231-238). Miscellaneous fabricated textile products (239).
Printing, publishing, and allied products.....	Printing, publishing, and allied industries.....	{Newspaper publishing and printing (271). Printing, publishing, and allied industries, except newspapers (272-279).
Chemicals and allied products.....	Chemicals and allied products.....	{Synthetic fibers (2823, 2824). Drugs and medicines (283). Paints, varnishes, and related products (285). Miscellaneous chemicals and allied products (281, 282 except 2823 and 2824, 284, 286-289).
Other nondurable goods (incl. not specified manufacturing industries).	{Paper and allied products..... Petroleum and coal products..... Rubber and miscellaneous plastic products..... Footwear, except rubber..... All other nondurable goods..... Not specified manufacturing industries.....	{Pulp, paper, and paperboard mills (261-263, 266). Paperboard containers and boxes (265). Miscellaneous paper and pulp products (264). Petroleum refining (291). Miscellaneous petroleum and coal products (295, 299). Rubber products (301-303, 306). Miscellaneous plastic products (307). Footwear, except rubber (313, 314). Tobacco manufactures (21). Leather products, except footwear (312, 315-317, 319). Leather: tanned, curried, and finished (311). Not specified manufacturing industries. ²
Trucking service and warehousing.....	Trucking service and warehousing.....	{Trucking service (421, 423). Warehousing and storage (422).
Railroads and railway express service.....	Railroads and railway express service.....	Railroads and railway express service (40).
Other transportation.....	{Street railways and bus lines..... Water transportation..... Air transportation..... All other transportation.....	{Street railways and bus lines (411, 413-415, 417). Water transportation (44). Air transportation (45). Taxicab service (412). Petroleum and gasoline pipe lines (46). Services incidental to transportation (47).

See footnotes at end of list.

**List C.—RELATIONSHIPS AMONG INDUSTRIAL CLASSIFICATION SYSTEMS USED IN THE
1960 CENSUS OF POPULATION—Continued**

Condensed classification—40 items	Intermediate classification—71 items	Detailed classification—149 items
Communications.....	Communications.....	(Radio broadcasting and television (488). Telephone (wire and radio) (481). Telegraph (wire and radio) (482, 489).
Utilities and sanitary services.....	(Electric and gas utilities..... Water supply, sanitary services, and other utilities.....	(Electric light and power, and electric-gas utilities (491, 493). ¹ Gas and steam supply systems (492, 496). Water supply (494). Sanitary services (495). Other and not specified utilities (497).
Wholesale trade.....	Wholesale trade.....	(Motor vehicles and equipment (501). Drugs, chemicals, and allied products (502). Dry goods and apparel (503). Food and related products (504). Farm products—raw materials (505). Electrical goods, hardware, and plumbing equipment (506, 507). Machinery, equipment, and supplies (508). Petroleum products (509). Miscellaneous wholesale trade (5001, 5003-5009). Not specified wholesale trade. ²
Food and dairy products stores.....	Food and dairy products stores and milk retailing.....	Food and dairy products stores (54). ⁴
Eating and drinking places.....	Eating and drinking places.....	Eating and drinking places (58).
Other retail trade.....	(General merchandise and limited price variety stores..... Apparel and accessories stores..... Furniture, home furnishings, and equipment stores..... Motor vehicles and accessories retailing..... Gasoline service stations..... Drug stores..... Hardware, farm implement, and building material retailing..... All other retail trade.....	(General merchandise retailing (53 except 533). Limited price variety stores (533). Apparel and accessories stores, except shoe stores (56 except 566). Shoe stores (566). Furniture and housefurnishings stores (571). Household appliances, TV, and radio stores (572, 573). Motor vehicles and accessories retailing (55 except 554). Gasoline service stations (554). Drug stores (501). Hardware and farm equipment stores (525). Lumber and building material retailing (521-524). Liquor stores (592). Retail florists (5992). Jewelry stores (597). Fuel and ice dealers (598). Miscellaneous retail stores (503-506, 599 except 5992). Not specified retail trade. ²
Finance, insurance and real estate.....	(Banking and other finance..... Insurance and real estate.....	(Banking and credit agencies (60, 61). Security and commodity brokerage and investment companies (62, 67). Insurance (63, 64). Real estate (incl. real estate-insurance-law offices) (65, 66).
Business services.....	Business services.....	(Advertising (731). Miscellaneous business services (732-736, 739).
Repair services.....	(Automobile repair services and garages..... Miscellaneous repair services.....	Automobile repair services and garages (75). Miscellaneous repair services (76).
Private households.....	Private households.....	Private households (88).
Other personal services.....	(Hotels and lodging places..... Laundering, cleaning, and dyeing services..... All other personal services.....	(Hotels and lodging places (70). Laundering, cleaning, and dyeing services (721, 727). Dressmaking shops (729). ⁵ Shoe repair shops (725). Barber and beauty shops (723, 724). Miscellaneous personal services (722, 726, 729). ⁵
Entertainment and recreation services.....	Entertainment and recreation services.....	(Theaters and motion pictures (78, 792). Bowling alleys and billiard and pool parlors (793). Miscellaneous entertainment and recreation services (791, 794).
Hospitals.....	(⁶)	
Educational services, government.....	Educational services, government.....	Educational services, government } (82, 84).
Educational services, private.....	Educational services, private.....	Educational services, private }
Welfare, religious and nonprofit membership organizations.....	Welfare, religious, and membership organizations.....	(Nonprofit membership organizations (861-866, 869). Welfare and religious services (866, 867).
Other professional and related services.....	(Legal, engineering, and miscellaneous professional services..... Medical and other health services ⁴	(Legal services (81). Engineering and architectural services (891). Accounting, auditing, and bookkeeping services (893). Miscellaneous professional and related services (892, 899). Medical and other health services, except hospitals (80 except 806). Hospitals (806).
Public administration.....	(Postal service..... Federal public administration..... State and local public administration.....	(Postal service } (91, 94). ⁷ Federal public administration } State public administration (92). ⁷ Local public administration (93). ⁷
Industry not reported.....	Industry not reported.....	Industry not reported (99).

NOTE: See Executive Office of the President, Bureau of the Budget, *Standard Industrial Classification Manual*, 1957 edition.

¹ The components of SIC category 3300 are allocated between "Other primary iron and steel industries" and "Primary nonferrous industries" on a ferrous-nonferrous basis.

² In the Population Census system, "not specified" categories were set up within certain groups to take care of schedule returns which were not sufficiently precise for allocation to a specific category within the group.

³ This item represents a combination of two categories in the 1960 Census industrial classification system—"Electric light and power" and "Electric-gas utilities."

⁴ This item represents a combination of two categories in the 1960 Census industrial classification system—"Food stores, except dairy products" and "Dairy products stores and milk retailing."

⁵ Dressmaking shops are separated from the rest of the SIC category 729 which is included in "Miscellaneous personal services."

⁶ The category "Hospitals," which appears as a separate item in the condensed classification, is included in "Medical and other health services" in the intermediate classification.

⁷ See text for explanation of basic difference between SIC and Population Census in classification of government workers.

private wage and salary workers unless there was evidence on the census schedule that they should have been classified in one of the other class-of-worker categories.

Percent of Self-Employed Workers Has Dropped

Among both males and females in the nonagricultural industries, the proportion of employed persons who were private wage and salary workers remained about the same over the period 1940 to 1960, changing only from 78 to 80 percent for women and from 76 to 77 percent for men.

The proportion of employed persons classified as government workers in nonagricultural industries (including Federal, State, and local governments in all areas of work, e.g., public administration, public utilities, public schools, government-owned bus lines) has increased steadily since 1940. In 1960, 12 percent of the employed males and 15 percent of the employed females in nonagricultural industries were government workers. Some of the sharpest growth in this category occurred in State and local governments, reflecting primarily the very rapid growth in the school systems of the country, as indicated by the steep rise in the government employee portion of the "educational services" industry.

Self-employed persons in nonagricultural industries, on the other hand, have remained at approximately the same numerical level over the 1950-60 decade, while declining sharply as a proportion of the total employed.

The numerical drop in agricultural workers occurred primarily among self-employed males, reflecting the reduction in the number of relatively small farms. The number of male unpaid family workers in agriculture also declined sharply, whereas the number of male private wage and salary workers and government workers in agriculture dropped only slightly. The most important decline in the number of employed females in agriculture occurred among unpaid family workers; they constituted over half of the total number of females employed in agriculture in 1950 and less than one-third in 1960. In the other class-of-worker categories in agriculture, the number of employed females increased slightly over the decade.

Special Editing Procedures

A factor to be considered in the interpretation of these data is that respondents sometimes returned occupation and industry designations which were not sufficiently specific for precise classification. Indefinite occupation and industry returns were frequently assigned, however, to the appropriate category through the use of supplementary information. For example, the name of the employer or the industry return on the census schedule was often of great assistance in determining occupation. The name of the employer (company name) was used extensively to assign the proper industrial classification using lists of employers showing their industrial classification in the 1958 Economic Censuses. In the coding of indefinite industry returns, helpful information was frequently obtained from other sources regarding the types of industrial activity in the given area or of the given company.

Comparability

Earlier censuses.—The changes in schedule design and interviewing techniques for the labor force questions, described in the section on "Employment status," have little effect on the comparability between 1940, 1950, and 1960 for most of the occupation, industry, and class-of-worker categories. For experienced unemployed persons, however, the 1950 and 1960 occupation data are not comparable with the data for the United States shown in Volume III of the 1940 reports on population, *The Labor Force*. The occupation data for public emergency workers (one of the two component groups of the unemployed in 1940) re-

ferred to "current job," whereas the "last job" of the unemployed was reported in 1950 and 1960.

The occupational and industrial classification systems used in 1940 and in 1950 are basically the same as those of 1960. There are a number of differences, however, in the title and content for certain items, as well as in the degree of detail shown for the various major groups. The 1940 and 1950 classification by class of worker is comparable with the 1960 classification system. The following publications contain much helpful information on the various factors of comparability and are particularly useful for understanding differences in the occupation and industry information from earlier censuses: U.S. Bureau of the Census, Sixteenth Census Reports, Population, *Comparative Occupation Statistics for the United States, 1870 to 1940*, and Bureau of the Census Working Paper No. 5, *Occupational Trends in the United States, 1900 to 1950*, 1958.

The 1940 and 1950 occupation and industry data shown in this report include adjustments which take account of the differences between the 1940, 1950, and 1960 classification systems. In order to maximize the amount of comparable data, it was sometimes necessary to estimate the adjustments from information which was incomplete or not entirely satisfactory for the purpose. Furthermore, there were certain differences among the 1940, 1950, and 1960 coding and editing procedures which could not be measured statistically. Caution should, therefore, be exercised in interpreting small numerical changes.

The 1940 data on occupation, industry, and class of workers shown in this report have been revised to eliminate members of the Armed Forces in order to achieve comparability with the 1950 and 1960 figures for the employed, which are limited to civilians. In the occupation tables of the 1940 reports, the Armed Forces were mainly included in the major group "protective service workers." In the industry tables, the Armed Forces were all included in the major group "government." In the class-of-worker tables, the Armed Forces were all included in the category "government workers" and in the total for "wage or salary workers."

Current Population Survey.—Statistics for the United States from the 1960 Census and from the April 1960 CPS on the percent of employed persons in the major occupation groups are shown in table DD. The percentages from the census exclude workers who did not report their occupation.

TABLE DD.—PERCENT DISTRIBUTION OF EMPLOYED PERSONS BY MAJOR OCCUPATION GROUP, ACCORDING TO 1960 CENSUS AND TO APRIL 1960 CURRENT POPULATION SURVEY

Major occupation group	Census	CPS
Total employed.....	100.0	100.0
Professional, technical, and kindred workers.....	11.8	11.4
Farmers and farm managers.....	4.1	4.3
Managers, officials, and proprietors, except farm.....	8.8	10.5
Clerical and kindred workers.....	15.1	14.6
Sales workers.....	7.5	6.7
Craftsmen, foremen, and kindred workers.....	14.2	13.0
Operatives and kindred workers.....	19.4	18.1
Private household workers.....	2.8	3.3
Service workers, except private household.....	8.9	9.3
Farm laborers and foremen.....	2.4	3.4
Laborers, except farm and mine.....	5.1	5.4

The census and the CPS also differed by 1 or 2 percentage points with respect to the proportion of the total employed who were in two of the major industry groups. Thus, the census showed 7 percent, whereas the CPS showed 8 percent, in agriculture; but the census showed 28 percent, whereas the CPS showed 26 percent, in manufacturing. For those employed in agriculture, the census showed a substantially smaller proportion as unpaid family workers, and for those employed in nonagricultural

industries, the census showed a somewhat smaller proportion as self-employed workers.

Other data.—Comparability between the statistics presented in this volume and statistics from other sources is frequently affected by the use of different classification systems, as well as by many of the factors described in the paragraphs on comparability with other data in the section on "Employment status." Occupation figures from the Population Census are not always directly comparable with data from government licensing agencies, professional associations, trade unions, etc. Among the sources of difference may be the inclusion in the organizational listing of retired persons or persons devoting all or most of their time to another occupation, the inclusion of the same person in two or more different listings, and the fact that relatively few organizations attain complete coverage of membership in an occupation field.

Quality of the Data

Information on the quality of the data on occupation and industry is available from the studies conducted in connection with the 1960 Census Evaluation and Research Program. A description of these studies and a reference to the publications which present the results may be found in the section above on "Quality of the statistics."

PLACE OF WORK AND MEANS OF TRANSPORTATION TO WORK

Data on place of work and means of transportation to work were obtained for the first time in the 1960 Census. They were derived from answers to the following questions on the FOSDIC form:

P28a. If he worked last week ("Yes" in P22)— What city (or town) did he work in last week?		
Not in a city— <input type="radio"/> Skip to P28c		
This city — <input type="radio"/>		
Different city—> Specify		
P28b. If city or town—Did he work inside city limits? <input type="radio"/> Yes <input type="radio"/> No		
P28c. What county (and State) did he work in?		
This county — <input type="radio"/>		
Different county—> Specify		
County	AND	State
P29. If he worked last week ("Yes" in P22)— How did he get to work? Mark 1 circle for principal means used last week		
<input type="radio"/> Railroad	<input type="radio"/> Taxicab	<input type="radio"/> Walk only
<input type="radio"/> Subway, elevated	<input type="radio"/> Private auto or car pool	<input type="radio"/> Worked at home
<input type="radio"/> Bus, streetcar	<input type="radio"/>	<input type="radio"/> Other means

Place of Work

Place of work refers to the geographic location in which civilians at work during the reference week and Armed Forces personnel (except those on leave, sick, etc.), carried out their occupational or job activities.

These work locations were classified in various ways for the purposes of this report. In chapter C place of work is classified simply as to whether it was in the same county (or equivalent area) as the worker's county of residence or in a different county. For the standard metropolitan statistical areas in chapter D, tables 216, 302, and 303, the categories are: (1) Central city (or cities) of the SMSA, (2) ring (or outlying parts) of the SMSA, and (3) the area outside the SMSA. For the statistics on earnings in table 217, the areas are: (1) Same State, (2) contiguous State, and (3) noncontiguous State.

Persons working at more than one job were asked to report on the job at which they worked the greatest number of hours during the census week. Salesmen, deliverymen, and others who work

in several places each week were requested to name the place in which they began work each day, if they reported to a central headquarters. In cases in which work was not begun at a central place each day, the person was asked to report the county in which he had worked the greatest number of hours during the previous week.

During the tabulation of statistics on place of work, it was discovered that some enumerators working in counties containing central cities of SMSA's, but outside the cities themselves, had failed to identify correctly these central cities as places of work. For the convenience of the enumerator and the coder, the FOSDIC document contained a circle for "This city" for indicating that the place of work was in the respondent's city or town of residence. Some enumerators understood this category to refer to a nearby large city and filled the circle when they should have written in the name of that city in P28a. Since the city that actually contained the place of work was frequently a central city of an SMSA, the statistics in tables 216, 302, and 303 were impaired.

After a limited study of the relevant materials, including some of the Household Questionnaires (which gave the respondent's own written reply), it was decided that a simple mechanical edit would tend to improve the statistics. This mechanical edit applies to entries for workers living in unincorporated parts of counties containing the central city of an SMSA (or other city with a population of 50,000 or more). For these workers, a workplace code of "This city" was tabulated as the largest city in the county. This edit was not used in New England, New Jersey, or the urban townships of Pennsylvania since it was considered likely that the category "This city" was used to refer to the town or township rather than to the large city. For the same reason, in all States, entries for workers living in incorporated places were not edited. Finally, codes of "This city" for workers living in unincorporated areas outside counties containing central cities of SMSA's (or other city of 50,000 or more) were tabulated as "balance of county" since it was not clear what city, if any, was intended.

Later, a national sample of reports of place of work was assembled for the purposes of estimating the magnitude of the error before and after the corrective edit. On a national basis, excluding from consideration New England States and New Jersey, it appears that the published statistics are substantially better than would have been the case had the corrective edit been omitted. The number of workers residing outside central cities in the balances of central counties and working in the central cities appeared to be considerably understated before the correction and only slightly overstated, in net effect, after the correction. For workers living in incorporated places within central counties or, in Pennsylvania, in urban townships within central counties, there still remains a small understatement of the number of persons whose place of work was in the central city. Moreover, it is probable that there is also some understatement of commuting to central cities from outside the central counties. It was not feasible to estimate the error or take corrective action for these more distant areas. Therefore, it cannot be readily determined whether the total number of commuters to central cities of SMSA's is overstated or understated in the published statistics.

It became apparent during the preparation of statistics for chapter D that in a few areas, notably some containing Armed Forces installations, appreciable numbers of persons who were tabulated as living in the ring and working in the central city had specified "worked at home" in the means of transportation inquiry. It is probable that these inconsistencies resulted from the above-described edit which, in these instances, assigned central city incorrectly as the place of work. Although it was not possible to retabulate these data so as to correct the error, the inconsistencies were removed from the final tables by assigning

the cases to the means of transportation category of "not reported."

A rough measure of the size of the error involved may be obtained by determining the amount by which the chapter D figure exceeds the chapter C figure for the "not reported" category in means of transportation for persons living in the SMSA ring. Further details for areas seriously affected are available in the list of corrections to be found in the Volume I report for each State; however, social and economic characteristics of the misclassified persons are not available except for the surmise that most of them were young men in the Armed Forces.

Means of Transportation to Work

Means of transportation to work refers to the principal mode of travel or type of conveyance used in traveling to and from work by civilians at work during the reference week and by Armed Forces personnel, unless on leave, sick, etc. In this report, the categories "railroad" and "subway or elevated" were combined; "taxicab" was included in "other means." The enumerator was instructed that "principal means" referred to the means of transportation covering the greatest distance, if more than one means was used in daily travel, or to the means of transportation used most frequently, if different means were used on different days. "Bus or streetcar" was defined as referring to vehicles operating within or between cities on public streets or highways. The facts that the items on place of work and means of transportation refer to the job held "last week" (see section on "Employment status") and that the worker may have subsequently changed his usual place of residence may explain some impossible or unlikely commuting statistics for particular areas.

As noted above, some differences between corresponding data on this subject in chapter C and chapter D reflect further refinements in the edit as applied to the tabulations for this report.

One Worker Out of Every Seven Commutes Across County Lines

Nearly 14 percent of all workers in the United States reported their place of work as being a county other than the one in which they were residing at the time of the census. Considerable variation is apparent in this respect, however, according to region and type of residents. In the West, for example, 8 percent worked outside their county of residence in contrast to more than 22 percent in the Northeast. Rural-nonfarm workers were somewhat more likely than urban workers, and much more likely than rural-farm workers, to work outside the counties in which they resided; but again, there are regional differences in place of work among these urban-rural components of the population.

From region to region, except for the West, the figures for those who worked outside their county of residence varied from 17 to 19 percent for rural-nonfarm workers and from 9 to 11 percent for rural-farm workers. In the West, these figures were 8 and 5 percent, respectively. The corresponding figures for urban areas, however, varied from a high of 23 percent in the Northeast to between 8 and 11 percent in the other regions. A smaller proportion of nonwhite workers than white reported employment outside the county of residence—9 percent for nonwhite and 15 percent for white.

At one extreme, about 21 percent of the workers living in urban parts of SMSA's outside central cities worked in a county other than that of their current residence. At the other extreme, only 9 percent of the workers in urban areas outside SMSA's crossed county lines to get to work. Rural-farm workers, both inside and outside SMSA's, included the same proportion (9 percent) who commuted out of the county of residence to work.

Automobile travel predominated as the means of transportation to work. Nationally, 64 percent of all workers reported "automobile or carpool." This percentage ranged from a low of 55

percent in the Northeast to a high of 75 percent in the West. On the whole, rural-nonfarm workers used automobiles more than urban workers, except in the West. Workers living in central cities of SMSA's used automobiles less than the national average but more than workers living on farms. Outside central cities, a larger proportion of the workers in SMSA's than in corresponding urban or rural areas outside SMSA's used automobiles to go to work.

As might be expected, use of public transportation, i.e., bus, streetcar, subway, elevated, and railroad was confined mainly to central cities and to other urban areas within SMSA's. Walking to work and working at home were less common inside than outside SMSA's among both urban and rural residents. Approximately one-half of the workers in the rural-farm population reported that they worked at home.

One-Third of Workers Residing in Metropolitan Rings Work in Central Cities

About 83 percent of the workers living in the central cities of standard metropolitan statistical areas (SMSA's) of 100,000 or more at the time of the 1960 Census also worked in these central cities, about 9 percent commuted to the outlying suburban ring, and approximately 2 percent worked outside the area. Of the workers living in the ring of these SMSA's, about 58 percent worked in the ring, 33 percent in the central cities, and 5 percent worked outside their SMSA of residence.

Although the major part of the working population of central cities of the combined SMSA's work in these cities, there is an appreciable variation from area to area. There was no SMSA in which less than one-half of the resident workers of central cities worked in these cities. There were, however, 3 SMSA's, Huntsville, Jersey City, and Newark in which this percentage ranged between 50 and 60. At the other extreme, the figure for the Newport News-Hampton SMSA was 93 percent, and there were 7 other SMSA's in which it fell between 90 and 93 percent.

The variability among areas in the percentage of the resident working population of the ring that also worked in the ring was somewhat greater.

This percentage ranged from 20 for the Rochester SMSA to 79 for the Trenton SMSA. The high percentages have occurred either in SMSA's which have considerable industrial development in the ring, such as Trenton or Pittsburgh, or in areas in which the population of the ring was relatively small and essentially rural, such as the El Paso and Lubbock areas.

In the aggregate, the number of workers who were residents of the central city but commuted to the ring was relatively small. There were, however, 7 SMSA's in which the percentage of commuters to the ring ranged from 25 to 40 percent. These areas were by and large relatively small, and with one exception had sizable military installations in the ring. In contrast there were 8 SMSA's in which the percentage of workers commuting to the ring was less than 3, among them the New York SMSA.

In popular discussions of suburban living, considerable attention is given to the problems of the worker who lives in the ring and commutes to the central city. In the aggregate such workers account for about one-third of the working population of the rings of SMSA's, but this proportion is highly variable among individual SMSA's. For 4 areas—Rochester, Winston-Salem, Durham, and Muskegon-Muskegon Heights—it ranged between 65 and 75 percent. At the other extreme there were 3 SMSA's—Jersey City, Paterson-Clifton-Passaic, and Trenton—in which fewer than 10 percent of the workers living in the ring worked in the central city. It will be noted that these 3 SMSA's are adjacent to the very large New York and Philadelphia SMSA's and that, in each case, a larger number of residents of the ring worked outside the smaller SMSA than worked in its central city.

The SMSA's with the highest percentages of commuters from the ring to the central city exemplify the situation described in a great deal of the discussion of suburbanization and commutation. Employment opportunities are concentrated in the central city, a large proportion of the suburban population commutes to work, and the proportion of the workers living in the ring who also work there is relatively small. In contrast, the SMSA's with the smallest proportion of commuters from the ring lie in the heart of the extensive urbanized areas of the East Coast, and in this megalopolitan setting several central cities may be readily accessible to considerable numbers of workers living in their respective rings.

The workers who commute from the ring to the central city were in some respects different from other workers in SMSA's. The percentage of males among the commuters was higher than that for other workers (73 vs. 66 percent), as was the percentage in the age group 25 to 44 years (52 vs. 45 percent). Likewise, the proportion using private automobile or carpool was greater among the commuters. The percentages of certain occupation groups—managers, officials, and proprietors; clerical and sales workers; and craftsmen, foremen, and kindred workers—were higher among the persons who commuted to the central city than among all other workers. The percentage of service workers, however, was somewhat lower.

The New York SMSA was the only SMSA in which more than one-half of the workers (about 55 percent) used public transportation in going to work. This percentage ranged between 25 and 44 for the Jersey City, New Orleans, Chicago, Philadelphia, Newark, and Boston SMSA's, and was less than 25 percent for all other SMSA's. The lowest percentages of workers using public transportation occurred in the smaller SMSA's such as Eugene (1.4 percent) and Bay City (1.2 percent).

INCOME IN 1959

Definitions

The data on income were derived from answers to the following questions on the Household Questionnaire:

<p>P32. How much did this person earn in 1959 in wages, salary, commissions, or tips from all jobs?</p> <p>Before deductions for taxes, bonds, dues, or other items. (Enter amount or check "None." If exact figure not known, give best estimate.)</p> <p>\$.....00 OR None.. <input type="checkbox"/></p> <p>(Dollars only)</p>
<p>P33. How much did he earn in 1959 in profits or fees from working in his own business, professional practice, partnership, or farm?</p> <p>Net income after business expenses. (Enter amount or check "None." If exact figure not known, give best estimate. If business or farm lost money, write "Loss" after amount.)</p> <p>\$.....00 OR None.. <input type="checkbox"/></p> <p>(Dollars only)</p>
<p>P34. Last year (1959), did this person receive any income from:</p> <p>Social security Pensions Veteran's payments Rent (minus expenses) Interest or dividends Unemployment insurance Welfare payments Any other source not already entered</p> <p>Yes.. <input type="checkbox"/> No.. <input type="checkbox"/></p> <p>What is the amount he received from these sources in 1959? (If exact figure not known, give best estimate)</p> <p>\$.....00 (Dollars only)</p>

Information on income for the calendar year 1959 was requested from all persons 14 years old and over in the sample. "Total income" is the sum of the amounts reported in P32 (wage or salary income), P33 (self-employment income), and P34 (other income). Earnings were obtained by summing wage or salary and self-employment income. The figures represent the amount of income received before deductions for personal income taxes, Social Security, bond purchases, union dues, etc.

Receipts from the following sources were not included as income: Money received from the sale of property, unless the recipient was engaged in the business of selling such property; the value of income "in kind," such as free living quarters or food produced and consumed in the home; withdrawals of bank deposits; money borrowed; tax refunds; gifts and lump-sum inheritances or insurance benefits.

Wage or salary income.—This is defined as the total money earnings received for work performed as an employee. It includes wages, salary, pay from Armed Forces, commissions, tips, piece-rate payments, and cash bonuses earned.

Self-employment income.—This is defined as net money income (gross receipts minus operating expenses) from a business, farm, or professional enterprise in which the person was engaged on his own account. Gross receipts include the value of all goods sold and services rendered. Expenses include the costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes, etc.

Income other than earnings.—This includes money income received from sources other than wages or salary and self-employment, such as net income (or loss) from rents or receipts from roomers or boarders; royalties; interest, dividends, and periodic income from estates and trust funds; Social Security benefits; pensions; veterans' payments, military allotments for dependents, unemployment insurance, and public assistance or other governmental payments; and periodic contributions for support from persons who are not members of the household, alimony, and periodic receipts from insurance policies or annuities.

This report presents information on income for families and unrelated individuals and for persons 14 years old and over by detailed characteristics. Data are also presented for 4-person husband-wife families with two (own) children under 18 in which the head was an earner, including families in which there were one or more additional earners.

In the statistics on family income, the combined incomes of all members of each family are treated as a single amount; whereas in the statistics on the income of unrelated individuals and in those on the income of persons 14 years old and over the classification is by the amount of their own income. Although the time period covered by the income statistics is the calendar year 1959, the characteristics of persons and the composition of families refer to the time of enumeration. Thus, the income of the family does not include amounts received by persons who were members of the family during all or part of the calendar year 1959 if these persons no longer resided with the family at the time of the interview. On the other hand, family income includes amounts reported by related persons who did not reside with the family during 1959 but who were members of the family at the time of enumeration. For most of the families, however, the income reported was received by persons who were members of the family throughout 1959.

Median and Mean Income

The median income is the amount which divides the distribution into two equal groups, one having incomes above the median, and the other having incomes below the median. For families and unrelated individuals, the median income is based on the total number of families and unrelated individuals; whereas for persons the medians are based on the distributions of persons 14 years old and over with income.

The mean income is the amount obtained by dividing the total income of a group by the number of income recipients in that group. For wage or salary income, self-employment income, and other income the means are based on persons having these types of income. In the derivation of aggregate amounts, persons in the open-end interval "\$25,000 and over" were assigned an estimated mean of \$50,000.

Limitations of the Data

The schedule entries for income are frequently based not on records but on memory, and this factor probably produces underestimates, because the tendency is to forget minor or irregular sources of income. Other errors of reporting are due to misunderstanding of the income questions or to misrepresentation.

A possible source of understatement in the income figures was the failure, on occasion, to obtain from the respondent any report on "other money income." For these cases of nonresponse, the assumption was made in the editing process that no income other than earnings was received by a person who reported the receipt of either wage or salary income or self-employment income. Similarly, when information was obtained on only one of the two types of earnings, it was assumed that a person who reported wage or salary income had no income from self employment and a person who reported self-employment income had no income from wages or a salary. Where no income information for a person 14 years old and over was reported, a more elaborate editing procedure was used, as described below in the section on "Editing of unacceptable data." Appendix tables C-2 and C-3 indicate the extent to which income in 1959 was allocated for families and persons 14 years old and over. Owing to an error in programing the tabulations, however, the nonresponse rates for families shown in these tables are somewhat overstated. This error is described in more detail in the section below on "Extent and implications of editing."

The income tables for families and unrelated individuals include in the lowest income group (under \$1,000) those that were classified as having no 1959 income, as defined in the census. Many of these were living on income "in kind," savings, or gifts; or were newly constituted families, unrelated individuals who had recently left families, or families in which the sole breadwinner had recently died or had left the household. However, many of the families and unrelated individuals who reported no income probably had some money income which was not recorded in the census.

The income data in this report cover money income only. The fact that many farm families receive part of their income in the form of rent-free housing and of goods produced and consumed on the farm rather than in money should be taken into consideration in comparing the income of farm and nonfarm residents. In comparing income data for 1959 with earlier years, it should be noted that an increase or decrease in money income between 1949 and 1959 does not necessarily represent a comparable change in real income, unless adjustments for changes in prices have been made.

Comparability

1950 and 1940 Censuses.—In 1950, information on income similar to that requested in 1960 was obtained from a 20-percent sample of persons 14 years old and over. If the sample person was the head of a family, the income questions were repeated for the other family members as a group in order to obtain the income of the whole family. In 1960, however, separate income data were requested for each person 14 years old and over in the sample household.

In tabulating family income for the 1950 Census, when only the head's income was reported, the assumption was made that there was no other income in the family. In the 1960 Census, all nonrespondents on income (whether heads of families or other per-

sons) were assigned the reported income of persons with similar demographic characteristics.

In 1940, all persons 14 years old and over were asked to report (a) the amount of money wages or salary received in 1939 and (b) whether income amounting to \$50 or more received in 1939 was from sources other than money wages or salaries. Income distributions for 1959 and 1949 shown in the present report relate to total money income or to earnings; comparable statistics from the 1940 Census are not available.

Current Population Survey.—A comparison of the family income distributions for the United States from the 1960 Census and from the March 1960 CPS is shown in table EE. The CPS distribution excludes families for which complete income information was not reported, whereas the census distribution includes nonrespondents, with their income estimated on the basis of known social, demographic, and economic characteristics.

TABLE EE.—PERCENT DISTRIBUTION OF FAMILIES BY FAMILY INCOME, ACCORDING TO 1960 CENSUS AND TO MARCH 1960 CURRENT POPULATION SURVEY

Family income	Census	CPS	Percentage point difference
Total.....	100.0	100.0	-----
Under \$1,000.....	5.6	5.1	-0.5
\$1,000 to \$1,999.....	7.5	8.3	0.8
\$2,000 to \$2,999.....	8.3	9.3	1.0
\$3,000 to \$3,999.....	9.5	10.1	0.6
\$4,000 to \$4,999.....	11.0	11.7	0.7
\$5,000 to \$5,999.....	12.3	13.2	0.9
\$6,000 to \$6,999.....	10.7	11.0	0.3
\$7,000 to \$7,999.....	8.6	8.4	-0.2
\$8,000 to \$8,999.....	11.5	10.6	-0.9
\$10,000 to \$14,999.....	10.5	9.1	-1.4
\$15,000 to \$24,999.....	3.3	2.4	-0.9
\$25,000 and over.....	1.3	0.7	-0.6

If one considers the proportion of families above or below the median class (\$5,000 to \$5,999), the differences are larger than would be expected from the standpoint of sampling variability. A number of studies are now being made or planned which may help in explaining these differences.

Income tax data.—For several reasons, the income data shown in this report are not directly comparable with those which may be obtained from statistical summaries of income tax returns. Income, as defined for tax purposes, differs somewhat from the concept used by the Bureau of the Census. For example, certain types of receipts such as veterans' payments, Social Security benefits, and relief payments, which constitute the main income source for some families, are excluded from income tax coverage. Moreover, the coverage of income tax statistics is less inclusive because persons receiving less than \$600 (less than \$1,200, if 65 years old or over) are not required to file returns. Furthermore, some income tax returns are filed as separate returns and others as joint returns; consequently, the income reporting unit is not consistently either a family or a person.

Old-Age, Survivors, and Disability Insurance earnings record data.—For several reasons the earnings data shown here are not directly comparable with those which may be obtained from the OASDI earnings records. The coverage of the OASDI earnings record data for 1959 is less inclusive than that of the 1960 Census data because of the exclusion of the earnings of self-employed physicians, many civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and persons who are not covered by the program because of insufficient earnings, including some self-employed persons, some farm workers, and domestic servants. Furthermore, earnings received from any one employer in excess of \$4,800 in 1959 are not covered by the earnings record data. Finally, as the Bureau of the Census data are obtained by household inter-

views, they will differ from the OASDI earnings record data, which are based upon employers' reports and the Federal income tax returns of self-employed persons.

Office of Business Economics State income series.—The Office of Business Economics of the Department of Commerce publishes data on aggregate and per capita personal income received by the population in each State. If the aggregate total income were estimated from the income statistics shown in this report, it would be lower than that shown in the State income series for several reasons. The income statistics published by the Bureau of the Census are obtained from households, whereas the State income series published by the Office of Business Economics is estimated largely on the basis of data derived from business and governmental sources. Moreover, the definitions of income are different. The Office of Business Economics income series includes some items not included in the income statistics shown in this report, such as income in kind, the value of the services of banks and other financial intermediaries rendered to persons without the assessment of specific charges, and the income of persons who died or emigrated prior to the time of enumeration. On the other hand, income statistics in publications of the Bureau of the Census include contributions for support received from persons not residing in the same household, and employee contributions for social insurance.

Although the primary purpose of the income questions in the 1960 Census was to provide distributions of families and of persons 14 years old and over by income levels, estimates of aggregate income can be obtained from these data. A comparison of aggregate income estimated from the 1960 Census returns with those prepared by the Office of Business Economics, indicates that aggregate total money income of persons 14 years old and over derived from table 99 of this report was about 94 percent of the OBE estimates for the United States after these estimates have been adjusted to make them as nearly comparable as possible with the income concept used by the Bureau of the Census. For wage and salary income alone, the ratio was 99 percent. A similar comparison of 1950 Census data showed that the corresponding ratios in that year were 91 percent for total money income and 97 percent for wage or salary income.

The indicated improvement in income coverage in the 1960 Census was even greater for families and unrelated individuals than it was for persons 14 years old and over. In 1950, the aggregate derived from the distributions for families and unrelated individuals was only 81 percent of the comparable OBE total, as compared with 95 percent for 1960. Probably the primary reason for the improvement in coverage on income in 1960 was the use of a household schedule on which income was obtained separately for each family member, in contrast to the 1950 procedure under which family income was obtained for the head of the family and for all other family members as a group. This improvement in procedure, therefore, implies that the increase in the average family income between 1949 and 1959 may be somewhat overstated.

Quality of the Data

Information on the quality of the data on income is available from the studies conducted in connection with the 1960 Census Evaluation and Research Program. A description of these studies and a reference to the publications which present the results may be found in the section above on "Quality of the statistics."

"Real" Family Income Rose 50 Percent in 1950's

Decennial census figures show that, for the country as a whole, the average money income of families and persons rose substantially between 1949 and 1959. The average (median) income of families was \$5,700 in 1959, a gain of \$2,600, or 84

percent, over 1949.¹⁶ For persons 14 years old and over with income in 1959, the median income was \$2,800; this was \$880, or 46 percent, higher than a decade earlier. Only part of the increase in income represented a gain in real purchasing power since prices also rose during this period.¹⁷ In terms of constant (1959) dollars, the median family income increased from \$3,800 in 1949 to \$5,700 in 1959, or by about 50 percent.

Underlying the rise in median family income has been a major shift of families upward along the entire income scale. The proportion of families with incomes of less than \$5,000 declined from 80 percent in 1949 to 42 percent in 1959. In contrast, the proportion receiving incomes between \$5,000 and \$10,000 increased from 17 percent in 1949 to 43 percent in 1959, and the proportion of families with incomes of \$10,000 and over rose from 3 percent to 15 percent during the decade. Despite the marked rise in incomes that has taken place, somewhat more than one in every five families reported less than \$3,000 in money income in 1959.

Close to 7 million of the 45 million families in the Nation received money incomes of \$10,000 and over in 1959 and an additional 19½ million had incomes ranging between \$5,000 and \$10,000. At the other end of the income scale, about 9½ million had incomes under \$3,000. The remaining 9 million families were in the \$3,000-to-\$5,000 bracket.

Both urban and rural residents experienced substantial increases in average family income between 1949 and 1959. The median income of urban families increased by about three-fourths, from \$3,500 in 1949 to \$6,200 in 1959. The average income of rural families, at \$4,400 in 1959, was nearly double the level at the beginning of the same period.

The average income of husband-wife families in the United States was considerably higher (\$5,900) than that of families with a female head (\$3,000), and that of families with a male head with no wife present (\$5,000). About one-third of the families headed by a female reported incomes under \$2,000, as compared with only one-tenth of those with a male head. The differences in average income between husband-wife and other families, however, were much greater among younger than among older families. For example, families headed by women under 35 reported a median income of only \$1,800 in 1959, as compared with \$5,500 for husband-wife families in the same age category. Among families headed by a person 65 years old and over, however, the average income of families with a male head was about the same as that of families having a female head. Irrespective of the age category, the average income of male unrelated individuals (\$1,900) was considerably higher than that of female unrelated individuals (\$1,300).

Of the four geographical regions of the United States, median incomes of husband-wife families were highest in the West. In 1959, the average income of husband-wife families in that region was about \$6,600, or 12 percent higher than the national average of \$5,900, while in the South, the average was \$4,800, or 19 percent below the national average; the Northeast and North Central Regions reported median incomes of \$6,400 and \$6,100, respectively.

Regional differences in average income were relatively greater among nonwhite than among white husband-wife families. Median incomes of nonwhite husband-wife families ranged from \$2,600 in the South to \$5,400 in the West, with the Northern

¹⁶ In this report, the income figures for 1949 for families and unrelated individuals exclude Alaska and Hawaii. This exclusion has no appreciable effect on the comparability of the income distributions or median incomes for 1959 and 1949.

¹⁷ The Consumer Price Index of the Department of Labor averaged 83.0 in 1949 and 101.5 in 1959.

regions averaging about \$4,800. For white husband-wife families, the median family income was \$5,200 in the South, as compared with \$6,700 for the West, and \$6,500 and \$6,200 for the Northeast and North Central Regions, respectively. For families other than husband and wife, the Northeast reported the highest average family incomes.

The median income of families with heads in the experienced civilian labor force ranged from about \$1,800 for private household workers to \$8,500 for professional workers. Families headed by self-employed medical workers reported the highest average income (\$14,700), twice as high as that received by families headed by salaried medical workers (\$6,900). Among families headed by managerial workers, however, the median income of the salaried group (\$8,800) was higher than that received by the self-employed (\$7,300). Slightly over one-third of all the families were headed by persons who were engaged in one of three occupation groups (sales workers, clerical workers, or craftsmen) in which the average income ranged from \$6,200 to \$6,900. The 7½ million families headed by operatives (largely semiskilled workers in manufacturing and related industries) had a median income of \$5,600.

Income gains for unrelated individuals were somewhat less marked than those recorded for families. The average income of unrelated individuals rose from \$1,000 in 1949 to \$1,600 in 1959, an increase of 60 percent. In 1949, 87 percent of all unrelated individuals had incomes of less than \$3,000, as compared with 70 percent in 1959. The proportion of unrelated individuals with incomes between \$3,000 and \$5,000 has increased from 10 percent in 1949 to 17 percent in 1959, and the proportion reporting \$5,000 and over went up from 3 percent to 13 percent over the same period. In assessing the incomes of unrelated individuals, it is relevant to note that an unrelated individual requires less income, on the average, than a family (two or more related persons) to maintain a similar level of living.

Men 35 to 44 Years Old Have Highest Average Incomes

Incomes in the United States were higher, on the average, for men 35 to 44 years old than for younger and older men. In 1959, the average (median) money income of men in the 35-to-44-year age group was \$5,500, moderately higher than the corresponding average for men 25 to 34 years old (\$4,800), and that for men 45 to 54 years old (\$5,100). Lower median incomes were reported by younger men who were at the start of their working careers, and by older men who in many cases had retired from the labor force. For males 20 to 24 years old, income in 1959 averaged slightly less than one-half of the peak reached at age 35 to 44; and for those 65 years old and over, the median was only one-third of the peak. Relative income differences among age groups were smaller for women than for men. With the exception of

women in the youngest and oldest age groups (14 to 19 and 65 and over), whose incomes averaged less than \$1,000 in 1959, median incomes for women in the 20-to-64-year age groups ranged between \$1,600 and \$2,200.

There were approximately 90 million income recipients 14 years old and over in the United States in 1959. Of these, about 55 million were men (representing 90 percent of all males 14 years old and over) and 35 million were women (representing 54 percent of all females 14 years old and over). For men, the median income advanced to \$4,100 in 1959, up \$1,700, or 69 percent, from 1949. Men with incomes of \$5,000 or more accounted for about 39 percent of all male income recipients in 1959, as compared with only 10 percent a decade earlier.

Among women with income, the average income was \$1,400 in 1959. As compared with 1949, the average income of women had increased by \$330, a gain of about 32 percent. The relatively low median income for women results in part from the sizable proportion of women who worked only part time or intermittently, or whose income was limited to small amounts from sources other than earnings.

For both white and nonwhite persons, the average income reported in 1959 was appreciably higher than that reported in 1949. For white males, the average income rose from \$2,600 in 1949 to \$4,300 in 1959, an increase of \$1,700 (68 percent). The median income of nonwhite men was \$2,300 in 1959, up \$910, or 67 percent, from 1949. During the same period the average income of white women increased by about \$300 (27 percent) and that of nonwhite women by about \$320 (54 percent).

There was a wide differential in 1959 between the median earnings (\$6,600) of the highest paid occupation group—male professional and managerial workers—which represented 20 percent of all males in the experienced civilian labor force, and the median earnings (\$2,900) of the lowest paid nonagricultural occupation group—laborers, except farm and mine—which comprised 7 percent of the total. Farm laborers and farmers, among the lowest earning groups, often have a considerable amount of nonmoney income which is not included in the data presented here. Craftsmen and operatives, the two largest occupation groups among men, reported median earnings of \$5,200 and \$4,300, respectively. Average earnings of female clerical workers (\$3,000) were somewhat higher than those reported for female operatives (\$2,300). Females in these two occupation groups constituted about 45 percent of all females in the experienced civilian labor force in the United States, as reported in the 1960 Census.

Wage or salary income represented about 75 percent of the aggregate amount of total money income reported by all persons 14 years old and over in the United States, the remainder being distributed between net income from self-employment, 14 percent, and income from other sources, 11 percent.

COLLECTION AND PROCESSING OF THE DATA

The steps taken in the collection and processing of data in the 1960 Census differed in several important respects from those in the 1950 Census. In 1960, all the complete-count data and the sample data for about four-fifths of the population were obtained in the field by self-enumeration supplemented, if necessary, by a visit or telephone call by an enumerator, whereas in 1950 nearly all the data were collected by direct interview.

In 1960, enumerators recorded all the complete-count items and many of the sample items in the form of codes by marking appropriate circles on the schedule, but those in 1950 recorded most answers in terms of written entries on the population census schedule which were later coded by clerks. In both censuses, some of the sample items were edited by clerks and some by machines; however, machine procedures were used much more extensively for this operation in 1960 than in 1950. For complete-

count data the 1960 Census used machine editing almost exclusively as contrasted to the reliance in 1950 on both mechanical and clerical operations.

More detailed descriptions of the 1960 Census procedures in the collection and processing of the data are given in the reports *United States Censuses of Population and Housing, 1960: Principal Data Collection Forms and Procedures, 1961*, and *Processing the Data, 1962*, U.S. Government Printing Office, Washington, D.C.

COLLECTION OF DATA

Single- and Two-Stage Areas

In all parts of the United States, a few days before the census date (April 1), all households received by mail an Advance Census Report (ACR) containing the complete-count questions, that is, the questions which were to be answered for all persons.

Household members were requested to fill these forms before the enumerator called.

In some areas, a "single-stage" enumeration procedure was used, as discussed in the "General" section above. When the enumerator in a "single-stage" area made his visit, he collected all the complete-count and sample information at that time.¹⁸ This information included answers to the questions on the ACR and to the additional (sample) questions which were to be answered for one-fourth of the households and one-fourth of the persons in group quarters.

In the other areas, a "two-stage" enumeration procedure was used. When the "Stage I" enumerator called to collect the ACR, he left at every fourth household a Household Questionnaire containing the sample questions and asked that the questionnaire be filled and mailed promptly to the local census office. (Special procedures were used for sample persons in group quarters.) If the "Stage II" enumerator found that the questionnaire was incompletely filled or was not mailed, or if he detected answers that contained obvious inconsistencies, he was instructed to make calls by telephone or personal visit to obtain the missing information or to correct errors.

Advance Census Report, Household Questionnaire, and FOSDIC Forms

When an enumerator visited a household in a single-stage area, he obtained and recorded the complete-count information required for each person and for each living quarters on a special form designed for electronic processing on FOSDIC (Film Optical Sensing Device for Input to Computer). In doing so, he made use of the information which the household had entered on the ACR. Also, in each sample household, he completed the sample FOSDIC form. In addition, he transferred the complete-count information for the sample household to the sample FOSDIC form.

When a Stage I enumerator visited a household in a two-stage area, he followed the procedure described above for recording the complete-count information. Later, the Stage I enumerator transferred the complete-count information for each sample household to its sample FOSDIC form. When the sample household mailed its Household Questionnaire to the local census office, the Stage II enumerator transferred the sample information from the Household Questionnaire to the sample FOSDIC form. If the sample household had failed to mail a completed Household Questionnaire, the Stage II enumerator usually recorded the sample information directly on the sample FOSDIC form when he called for the information by telephone or by personal visit.

Thus, the enumerator's duty was to deliver completed FOSDIC schedules to the local census office. To do so, he made use of completed ACR's and Household Questionnaires where they were available and conducted direct interviews as needed.

Most of the questions on the ACR and Household Questionnaire were virtually identical with the corresponding ones on the FOSDIC forms. Those on the FOSDIC forms were somewhat briefer and more compact, contained more boxes for precoding, and omitted many of the brief instructions which are given on the self-enumeration forms to explain the meaning of certain questions. The differences between the two types of forms, however, are regarded as minor and probably did not contribute in

any important way to a lack of comparability of the sample data; the less detailed wording on the FOSDIC forms was reinforced by the training on detailed instructions that was given to enumerators who used these forms. The respondent was probably not ordinarily aware, however, of the special cases discussed in the instructions unless he asked the enumerator for clarification of a particular point. (See the section on enumeration schedules for illustrative examples of these forms.)

Field Review

In the 1960 Census, one of the more important innovations was a series of regularly scheduled field reviews of the enumerator's work by his crew leader or field reviewer. This operation was designed to assure at an early stage of the work that the enumerator was performing his duties properly and had corrected the errors he had made. Moreover, the completeness of coverage of the enumeration was checked in various ways, including, for the first time, an advance partial listing by one of the supervisors of addresses throughout the enumerator's district, and the checking of this list of addresses against that reported by the enumerator.

SAMPLE DESIGN

For persons in housing units at the time of the 1960 Census, the sampling unit was the housing unit and all its occupants; for persons in group quarters, it was the person. On the first visit to an address, the enumerator assigned a sample key letter (A, B, C, or D) to each housing unit sequentially in the order in which he first visited the units, whether or not he completed an interview. Each enumerator was given a random key letter to start his assignment, and the order of canvassing was indicated in advance, although these instructions allowed some latitude in the order of visiting addresses. Each housing unit assigned the key letter "A" was designated as a sample unit, and all persons enumerated in the unit were included in the sample. In every group quarters, the sample consisted of every fourth person in the order listed.

In 1950, the sample was designed to include every fifth person, regardless of his living arrangements. Thus, if a household head was in the sample, his wife, if any, and most or all of his children, if any, were not in the sample; likewise, if the wife or a child was in the sample, the head generally was not. This handicap to the analysis of household and family statistics was overcome by the use of the housing unit (hence, the household) as the basic sampling unit in 1960. But the effect of "clustering" persons by sampling whole households increased the sampling variability of the data for some items and is one of the factors that led to the enlargement of the sampling fraction from 20 percent to 25 percent. (See discussion of "Sampling variability" below.) Moreover, in the 1950 Census, the last few sample questions were to be asked only of every sixth sample person and may, therefore, have been regarded by the enumerator as less important, hence, could be given more casual treatment than the other sample questions. In the 1960 Census, if a person was in the sample, he was asked to answer all of the sample questions that were applicable.

Although the 1960 sampling procedure did not automatically insure an exact 25-percent sample of persons or housing units in each locality, the sample design was unbiased if carried through according to instructions. Generally, for large areas the deviation from 25 percent was found to be small. Biases may have arisen, however, if the enumerator failed to follow his listing and sampling instructions exactly.

The unweighted sample comprised 24.7 percent of the total population in the United States as a whole and 24.5 percent of the total households. As finally prepared for processing, it comprised somewhat higher percentages, namely, 24.9 for persons

¹⁸ States enumerated completely on a single-stage basis were: Alaska, Arkansas, Hawaii, Idaho, Mississippi, Montana, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming. States enumerated partly, but not completely, on a single-stage basis were: Alabama, Arizona, California, Colorado, Florida, Georgia, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Nebraska, Oklahoma, Oregon, Texas, Utah, Washington, and Wisconsin.

and 24.8 for households. Available records indicate that the sample of persons as designated in the field was very slightly larger than this, since the number of persons canceled because of bias in size of household was very slightly larger than the 85,255 persons replicated to replace them. Estimates of the total number and percent of persons with specified characteristics based on sample data for 1960 were obtained by a ratio estimation procedure that is described in the section below on "Ratio estimation."

MANUAL EDITING AND CODING OF SCHEDULES

After the sample (FOSDIC) forms had been assembled and checked for completeness in the field, they were sent to a central processing office in Jeffersonville, Indiana, for coding and microfilming. The FOSDIC forms for the complete-count data were not coded manually (except where some special problems arose) before they were microfilmed.

The clerical editing and coding operation of the sample schedules provided an opportunity to correct obvious errors and to assign numerical codes to written entries before the data were processed by the electronic equipment. As a rule, editing or coding was performed by hand only when it could not be done effectively by machine. Thus, the manual operation was essentially limited to the minority of items where editing and coding required the reading of written entries rather than the reading of marked circles.

One of the coding problems that required the manual processing of every sample FOSDIC form was the coding of the item on relationship to the head of the household. The main purposes of this operation were to assign codes for relationship in detailed categories and to assign a family number to every member of a family group that was sharing the living quarters of the household head as a secondary family or a subfamily. A special group of coders assigned a code for type of institution or type of other group quarters to the first person in each of these types of living accommodations, and then the computer assigned the same code to all other persons in the group quarters.

Clerks also assigned codes for mother tongue of the foreign born, State of birth of the native population, country of origin of the foreign stock, residence five years prior to the census date, place of work, and income. The items related to geographic location created special problems because many respondents were unfamiliar with the names of counties and other political subdivisions required and, in many instances, provided incomplete or inaccurate information, or information not called for by the questions.

A specialized group of clerks coded the entries for occupation and industry. The clerks were provided with lists of names of large companies and their industrial classifications, as well as the *1960 Census of Population, Alphabetical Index of Occupations and Industries*. The class-of-worker entry was edited for consistency with occupation and industry.

The principles of quality control were applied in the manual editing and coding operation, just as they were used in the review of enumeration work and in certain other operations. Thus, in the first stage of the coding operation, one-fifth of the work of each occupation and industry coder, and one-tenth of the work of other coders, was verified by an examination of the work of the coders during the first few weeks of their assignment, that is, before they were eligible to be rated as "qualified." In the second stage, one-fortieth of the work of the occupation and industry coders, and one-eightieth of that of the other coders, was checked by two verifiers, each of whom did the work independently and did not see the work of the coder or of the other verifier. If

the work done by a coder in the early phase was rejected on the basis of either or both of these checks, his work was verified completely. If the coder's work failed to qualify after a reasonable period of time he was dismissed from coding work.

After the coder qualified, control of his work was based on the results of the independent verification in which the majority rule among the coder and two verifiers was used to determine whether the coder had made an error. If the coder's error rate rose and remained consistently high, he was removed from the coding operation. In addition, provision was made for correction of all the work of occupation and industry coders who showed very high weekly error rates. Information on error rates will be given in later publications.

ELECTRONIC PROCESSING

The steps after the clerical processing of the sample data for 1960 were quite different from those performed in connection with the 1950 Census. In 1960, the procedure was as follows: (1) The schedules, which contained both population and housing information in the form of shaded code circles, were microfilmed; (2) the microfilm was read by FOSDIC, which converted the shaded circles to coded signals on magnetic tape; (3) this tape was read by an electronic computer, which edited, coded (that part of coding sometimes referred to as "recoding"), and tabulated the data; (4) a high-speed electronic printer printed the numbers and captions on sheets to which preprinted titles were added by hand; (5) the tables were reviewed; and (6) the sheets were reproduced by offset printing for publication.

In 1950, the corresponding steps were as follows: (1) Clerks edited and coded both complete-count and sample entries; (2) for each person, clerks punched a card containing the codes for population (but not housing) characteristics; (3) the punchcards were edited, the sample punchcards were weighted, and all cards were tabulated by conventional tabulators; (4) the tables were typed manually from the tabulation sheets; (5) the typed tables were reviewed; and (6) the tables were reproduced by offset printing for publication.

The extensive use of electronic equipment in the 1960 Census insured more uniform editing of the data than could have been accomplished by clerical work. On the other hand, the inability of the electronic equipment to read names and to perform some other operations that can be readily done by clerks introduced a measure of inflexibility at certain points in the processing operations. In the editing operation, substitutions were made for some of the nonresponses and inconsistencies, in order to simplify later tabulations and to make the published tables more usable. Moreover, the use of FOSDIC completely eliminated the cardpunching operation and thereby eliminated one important source of error. The types of error introduced by the use of FOSDIC were probably minor by comparison.

The enormous capacity of the electronic computer made it possible to do much more complex editing and coding than in earlier censuses and to insure consistency among a larger number of interrelated items. For example, the computer assigned a code to each person 14 years old and over for one of the five categories of employment status. In some instances, the determination of this code required the scanning of entries in as many as nine items, where a full cross-classification of the nine items would involve approximately 7,500 combinations of categories. At the same time, the greater capacity of the computer permitted the keeping of a detailed record of the extent of computer editing of census entries. (See section below on "Editing of unacceptable data.")

ACCURACY OF THE DATA

SOURCES OF ERROR

Human and mechanical errors occur in any mass statistical operation such as a decennial census. Such errors include failure to obtain required information from respondents, obtaining inconsistent information, recording information in the wrong place or incorrectly, and otherwise producing inconsistencies between entries on interrelated items on the field documents. Sampling biases occur because some of the enumerators fail to follow the sampling instructions. Clerical coding and editing errors occur, and errors occur in the electronic processing operation for reasons discussed in the next section.

Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Review of the enumerator's work, verification of manual coding and editing, checking of tabulated figures, and ratio estimation of sample data to control totals from the complete count (as discussed in a later section) reduce the effects of the errors in the census data.

Very minor differences in the data within this report result from imperfections in the electronic equipment. For example, the total number of families is 45,128,305 in table 186 and 45,128,397 in table 187. No attempt has been made to reconcile these insignificant discrepancies.

EDITING OF UNACCEPTABLE DATA

Assignments for Nonresponse or Inconsistency

Regardless of the operating procedure that is used, the desired end is to produce a set of statistical tables that describe the population as accurately and clearly as possible. In keeping with this objective, certain unacceptable entries on the 1960 Census questionnaires were edited.

As one of the first steps in editing, the computer scanned the configuration of marks from a given section of the sample FOSDIC schedule to determine whether it contained information for a person, or merely a spurious mark or two. If the section contained marks for at least two of the general characteristics—relationship, sex, color, age, marital status—and at least one of the entries was in relationship, sex, or color, the inference was made that the section contained entries for a person. Names were not used as a criterion of the presence of a person because the electronic computer was unable to distinguish between a name and any other entry in the name space. If the entries indicated that the line contained data for a person, the computer supplied information by assignment (as explained below) for more than half of the sample characteristics, where such information was missing, and for all of the missing complete-count characteristics. However, if sample information was entirely missing for more than a tolerable proportion of sample households in an area, special remedial action was taken, as is explained in the section below on "Editing for other reasons."

Allocations, or assignments of acceptable codes in place of unacceptable entries, were needed most often where an entry for a given item was lacking or where the information reported for a person on that item was inconsistent with other information for the person. (See section below on "Editing for other reasons" for examples of other situations requiring allocations.) As in earlier censuses, the general procedure for changing unacceptable entries was to assign an entry for a person that was consistent with entries for other persons with similar characteristics. Thus, a person who was reported as a 20-year-old son of the household head, but for whom marital status was not reported, was assigned a marital status from a marital status distribution for other "sons" in the same age group. Through the assignment of acceptable codes in place of blanks or unacceptable entries, it is believed that the usefulness of the data is enhanced.

In earlier censuses, the distributions from which assignments were made were derived from previous censuses or surveys. The use of the electronic computer improved upon this procedure by making feasible the use of distributions implicit in the 1960 data being tabulated. In addition, the superior flexibility of the computer permitted the use of a greater number of homogeneous subgroups and thus increased the probability that assignments would be accurate and consistent with entries on other items for the person.

The technique in the 1960 Census may be illustrated by the procedure used in the assignment of wage or salary income. The allocation of this item was carried out in the following steps:

1. The computer stored reported wage or salary income, by sex, age, color, major occupation group, and number of weeks worked in 1959, for persons 14 years old and over who worked in 1959.
2. Each stored wage or salary income was retained in the computer only until a succeeding person having the same characteristics and having wage or salary income reported was processed through the computer during the mechanical edit operation. Then, the reported wage or salary income of the succeeding person was stored in place of the one previously stored.
3. When the wage or salary income of a person 14 years old or over who worked in 1959 was not reported or the entry was unacceptable, the wage or salary income assigned to this person was that stored for the last person who otherwise had the same characteristics.

The above procedure insured that the distribution of wage or salary income assigned by the computer for persons of a given set of characteristics would correspond closely to the reported wage or salary income distribution of such persons in the current census.

In general, the procedure for making assignments of complete-count items shown in chapters C and D was more complex than that used for making assignments of complete-count items shown in chapter B. The assignment procedure used in chapters C and D often took account of additional information not available on the complete-count schedules about the sample person, and, when feasible, about other members of the household to determine the most appropriate value to assign.

For persons in large group quarters in which the enumerator had not been able to obtain the required sample information, a manual editing operation was used. For some of these places, entries for sample items were assigned by clerks from distributions of acceptable values for each item. These distributions of acceptable values were compiled through inspection of data for other group quarters of similar type for which adequate entries had been obtained.

For about 1,150 members of the Armed Forces in Maine, most of whom were under 30 years of age and single, the complete-count items were not transcribed to the Stage II schedules. In the editing of the data for the reports based on the 25-percent sample, the age and marital status of these persons were obtained by allocation. The age assigned by the computer program was 80, and the marital status assigned was widowed. This error was found too late for a correction to be made. As a result, there is an overstatement of the number of widowed males 80 years of age and an understatement of single males 15 to 29 years of age in the rural-nonfarm white population for the State of Maine, the Northeast, and the United States as a whole. In this report the effect of the error is slight except in those tables showing members of the Armed Forces by age (tables 194, 195, and 251), persons living in military barracks by age (tables 182 and 245), and percent of males in the labor force by age for States (table 285). The error, however, is present in all tables showing age or marital status except those which are limited to the civilian population or to the population in households.

Editing for Other Reasons

Editing was performed not only when there were nonresponses and inconsistencies but was also performed when the proportion of sample households in a "work unit" (group of enumeration districts) with little or no sample information exceeded certain tolerance limits. When this situation was discovered, households with inadequate sample information were canceled, and households of the same size in the same general area that did have the sample information were replicated to replace the ones that were canceled. Altogether, 315,069 persons and 127,257 households were involved in this procedure. Also, adjustments were made in the work done by a small proportion of the enumerators, for biases in the size distribution of sample households as compared to that of all households. Thus, if there were too many large sample households, the proper number of large households was canceled and the same number of small households was substituted. For the United States as a whole, this adjustment involved 85,255 persons in 26,307 replicated households. The number of persons in the canceled households has not yet been firmly established, but it is estimated at about 110,000.

Editing was necessary, in addition, because of occasional failures in the microfilming process that caused an entire page of a schedule to be unreadable by FOSDIC. When this occurred, all information for at least one household was canceled. (Each sample FOSDIC page was designed to contain information for one housing unit and for one person, or for two persons.) If the unreadable page contained entry spaces for both housing and population information, two households may have been canceled because the computer was not always able to determine in this situation whether the page represented the beginning of a new household or the continuation of the previous household.

Specific tolerances were established for the number of computer allocations, substitutions, and cancellations that would be permitted for an enumeration district. If the number of corrections was beyond tolerance, the schedule books in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged schedules, from improper microfilming, from faulty reading by FOSDIC of undamaged schedules, or from other types of machine failure, the schedules were manually repaired and reprocessed. Sometimes this repair work consisted simply of remicrofilming or of making darker shadings in the code circles. If a large number of allocations resulted from faulty entries on the schedules, the appropriateness of the computer allocations was considered and, in some instances, a manual allocation based on special sources of information was substituted.

As noted, inconsistencies in the reported data were resolved primarily by machine editing, but occasionally by clerical editing. However, because of limitations of computer capacity and other resources, a number of complicated editing steps were not introduced when the effect upon the final data was considered to be small. Thus, for some characteristics, there may be a small number of cases associated with an unlikely age group. Illustrations include: Women under 18 years old with 5 or more children; members of the Armed Forces under 17; and parents under 30 years old of household heads or wives.

Extent and Implications of Editing

In order to measure the effects of the various editing procedures, a number of appendix tables are presented. Tables B-1 and B-2 follow the chapter B tables, tables C-1, C-2, and C-3 follow the chapter C tables, and table D-1 follows the chapter D tables. Specifically, tables B-1 and B-2 show the extent of the allocations for nonresponse or for inconsistency. In these tables "substituted persons" and "persons with allocations" are stated as percentages of the population subject to the risk of such substitutions or allocations. Summary figures on the number

and percentage of various types of substitutions and allocations are shown in the following table:

Subject	Number of persons	Percent of persons
Total persons:		
All ages.....	179,323,175	
14 years old and over.....	126,276,044	
Persons substituted for omissions due to:		
Noninterview.....	770,655	0.4
Mechanical failure.....	210,022	0.1
Persons with one or more allocations.....	5,336,865	2.9
Persons with allocations of:		
Relationship (all ages).....	974,630	0.5
Sex (all ages).....	655,908	0.4
Color (all ages).....	628,751	0.3
Birth date (all ages).....	2,905,495	1.7
Marital status (14 years old and over).....	1,186,786	0.9

Persons substituted for "omissions due to noninterview" represent persons from previous occupied housing units substituted to take the place of the group of persons in a housing unit enumerated as occupied but for which the computer could find no persons. Persons substituted for "omissions due to mechanical failure" represent persons on preceding schedule pages who were substituted to account for persons on pages which could not be read by FOSDIC.

The count of "persons with one or more allocations" and the count of persons with allocations of various characteristics generally exclude "persons substituted." However, persons who served as substitutes for other persons, and who also had missing or inconsistent entries in one or more population characteristics, were included in the count of persons with one or more allocations for themselves and also for the person (or persons) for whom they were substituted. The sum of the percentages of persons having assignments in each population characteristic is greater than the number of persons with one or more allocations because some persons had allocations on more than one characteristic.

Figures in tables B-1 and B-2 show that the central cities of urbanized areas, where special problems of enumeration are encountered, had relatively large percentages of allocations for the several items, as compared with percentages for the United States as a whole. Corresponding figures for rural areas were relatively low, in general, and those for urban areas outside central cities of urbanized areas were generally near those for rural areas.

The size of the sample and the extent of replication are shown in appendix table C-1. The extent of the allocations for nonresponse or for inconsistency is shown in tables C-2 and C-3. In these tables, the percentages of persons for whom nonresponses were allocated are essentially exclusive of those persons with all sample characteristics not reported.

In table C-1, "persons in sample" and "households in sample" represent unweighted counts of distinct sample persons and distinct sample households, as determined after the computer had completed the various processing steps. These totals do not include the figures for "replicated because of bias in size of household" and "replicated because of absence of sample information" that appear on the following lines in table C-1. In tables C-2 and C-3, replicated persons were tallied as many times as they were replicated; and, therefore, the percent of "persons in sample" in table C-3 may be larger than the corresponding percent in table C-1. All data shown in tables C-2 and C-3 are weighted so as to be consistent with corresponding complete-count data,

except "persons in sample" in table C-3, which represents the ratio of the unweighted sample count plus replications to the total population.

In table C-2, "persons with two or more sample characteristics reported" are persons with acceptable entries in two or more relevant sample characteristics (for example, entries in employment status are only relevant to persons 14 years old and over). The characteristics listed in table C-2 cover all the items that are published in chapter C and are classified into three major groups: Those subjects for which all nonresponses were allocated, those for which some but not all nonresponses were allocated, and those for which no nonresponses were allocated. For each subject, the universe applicable to the characteristic is indicated, along with the percent of persons in the relevant universe for whom nonresponses were allocated.

For each subject, the number of assignments shown in table C-2 for nonresponse or inconsistency includes only those made by the computer. This number excludes any assignments that were made in the field review of the census schedules, in the manual editing and coding operation, or in the manual repair of schedules for areas where the computer had made more than the tolerable number of assignments on the subject.

In table C-3, the percent of nonresponses shown in the column "nativity and nativity of parents" is overstated because, if both items were not reported, the person was incorrectly counted twice in the numerator.

The allocation rates for family income shown in tables C-2 and C-3 are somewhat overstated. The number of primary individuals for whom income items were allocated was inadvertently included in the numerator of the rates. The numerator should have included only families for which any member 14 years old and over had a nonresponse on income. This error was discovered too late for correction. For most areas, a fairly adequate correction may be obtained by assuming that the allocation rate for primary individuals is the same as that shown for persons 14 years old and over. This adjustment, though reducing the rates for families shown in tables C-2 and C-3, would nevertheless tend to result in an overstatement of the true rate because allocation rates for primary individuals are generally higher than those for all persons 14 years old and over. The application of this procedure reduces the family-income allocation rate for the United States from 11.7 to 10.6 percent.

Appendix table D-1 of this report presents distributions of selected subjects essentially as they appeared prior to allocation of nonresponses. These distributions may be compared with the corresponding statistics in the regular table, category by category, in order to measure the net effects of allocation.

The figures shown are based on the final weighted sample figures, and the total number of persons in each distribution should agree with corresponding totals in the report. The data shown include persons in households which were replicated, and the characteristics tabulated for these persons are those of the members of the replicated household. In other words, the "not reported" categories in table D-1 include allocations but not replications (unless the person in the replicated household himself happened to have a nonresponse on the given characteristic).

For each subject, the number of allocations shown in table D-1 for "not reported" includes only those made by the computer; the exclusions are the same as those noted above for table C-2.

For items with all nonresponses allocated in 1960 but not in 1950—such as income and years of school completed—the 1960 percent distributions are based on the total number of persons in the given area or group; whereas the corresponding percent distributions for earlier censuses as shown in this report, are based on the number reporting. If the nonresponses had been distributed for the earlier censuses in the more complicated ways

that were used for the 1960 Census, the results obviously would have been a little different.

The "not reported" category for years of school completed includes persons who failed to report whether they finished the grade as well as those who did not report the highest grade attended. In this respect the category is not comparable with the "not reported" category for 1950, which included only those who did not report highest grade attended.

Certain types of response assignment (or allocation) are not included in the appendix table. Among these, the following are the chief examples: Allocations of color were made for household members by substituting the color of the household head; allocations of marital status and sex were automatically made for persons identified as wives of household heads or as heads of households with wife present; and allocations were made at random for missing information on quarter of year of birth. Allocations of color made by substituting that of the household head were made only when the person was related to the head. The possibility of error in these cases was considered so low that the inclusion of such allocations in the table was felt to be unjustified. All persons coded as wives were automatically classified as female and married, and all heads with wife present as male and married. These automatic classifications occurred regardless of the original entries in sex or marital status, and assignments in sex or marital status resulting from these allocations were not recorded. Also, clerical corrections, such as making darker shadings in the code circles, were not tallied and are not reflected in the counts of allocations.

Assignments for nonresponse or inconsistency, substitutions of persons and households, and other aspects of editing by the electronic computer will be discussed more fully as part of a more detailed report to be published at a later date under the title *Eighteenth Decennial Census: Procedural History*.

RATIO ESTIMATION

The statistics based on the sample of the 1960 Census returns are estimates that have been developed through the use of a ratio estimation procedure. This procedure was carried out for each of the following 44 groups of persons in each of the smallest areas for which sample data are published.¹⁹

Group	Sex, color, and age	Relationship and tenure
1	Male white: Under 5	
2	5 to 13	
3	14 to 24	Head of owner household
4	14 to 24	Head of renter household
5	14 to 24	Not head of household
6-8	25 to 44	Same groups as age group 14 to 24
9-11	45 and over	Same groups as age group 14 to 24
12-22	Male nonwhite: Same groups as male white	
23-33	Female white: Same groups as male white	
34-44	Female nonwhite: Same groups as male white	

¹⁹ Estimates of characteristics from the sample for a given area are produced using the formula:

$$x' = \sum_{i=1}^{44} \frac{x_i}{y_i} Y_i$$

where x' is the estimate of the characteristic for the area obtained through the use of the ratio estimation procedure,
 x_i is the count of sample persons with the characteristic for the area in one (1) of the 44 groups,
 y_i is the count of all sample persons for the area in the same one of the 44 groups, and
 Y_i is the count of persons in the complete count for the area in the same one of the 44 groups.

For each of the 44 groups, the ratio of the complete count to the sample count of the population in the group was determined. Each specific sample person in the group was assigned an integral weight so that the sum of the weights would equal the complete count for the group. For example, if the ratio for a group was 4.2, one-fifth of the persons (selected at random) within the group were assigned a weight of 5, and the remaining four-fifths a weight of 4. The use of such a combination of integral weights rather than a single fractional weight was adopted to avoid the complications involved in rounding in the final tables. In order to increase the reliability, where there were fewer than 50 persons in the complete count in a group, or where the resulting weight was over 16, groups were combined in a specific order to satisfy both of these conditions.

These ratio estimates reduce the component of sampling error arising from the variation in the size of household and achieve some of the gains of stratification in the selection of the sample, with the strata being the groups for which separate ratio estimates are computed. The net effect is a reduction in the sampling error and bias of most statistics below what would be obtained by weighting the results of the 25-percent sample by a uniform factor of four. The reduction in sampling error will be trivial for some items and substantial for others. A by-product of this estimation procedure is that estimates for this sample are generally consistent with the complete count with respect to the total population and for the final subdivisions used as groups in the estimation procedure. A more complete discussion of the technical aspects of these ratio estimates will be presented in another report.

SAMPLING VARIABILITY

The figures from the 25-percent sample tabulations are subject to sampling variability, which can be estimated roughly from the standard errors shown in tables FF and GG below. Somewhat more precise estimates of sampling error may be obtained by using the factors shown in table HH in conjunction with table GG for percentages and table JJ for absolute numbers. These tables²⁰ do not reflect the effect of response variance, processing variance, or bias arising in the collection, processing, and estimation steps. Estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date. The chances are about two out of three that the difference due to sampling variability between an estimate and the figure that would have been obtained from a complete count of the population is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks.

Table FF shows rough standard errors of estimated numbers up to 50,000. The relative sampling errors of larger estimated numbers are somewhat smaller than for 50,000. For estimated numbers above 50,000, however, the nonsampling errors, e.g., response errors and processing errors, may have an increasingly important effect on the total error. Table GG shows rough standard errors of data in the form of percentages. Linear interpolation in tables FF and GG will provide approximate results that are satisfactory for most purposes. The standard errors estimated from tables FF and GG are not directly applicable to differences between two sample estimates. These tables are to be applied in the three following situations as indicated:

1. For a difference between the sample figure and one based on a complete count (e.g., arising from comparisons between 1960 sample statistics and complete-count statistics for 1950 or 1940),

the standard error is identical with the standard error of the 1960 estimate alone.

2. For a difference between two sample figures (that is, one from 1960 and the other from 1950, or both from the same census year); the standard error is approximately the square root of the sum of the squares of the standard error of each estimate considered separately. This formula will represent the actual standard error quite accurately for the difference between estimates of the same characteristics in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. If, however, there is a high positive correlation between the two characteristics, the formula will overestimate the true standard error. The approximate standard error for the 1960 sample figure is derived directly from table FF or GG. The standard error of a 20-percent 1950 sample figure may be obtained from the relevant 1950 Census report, or an approximate value may be obtained by multiplying by 1.2 the appropriate value in table FF or GG.

3. For a difference between two sample estimates, one of which represents a subclass of the other, table FF or GG (which ever is appropriate) can be used directly, with the difference considered as the sample estimate.

TABLE FF.—ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED NUMBER

[Range of 2 chances out of 3]

Estimated number	Standard error	Estimated number	Standard error
50.....	15	5,000.....	110
100.....	20	10,000.....	160
250.....	30	15,000.....	190
500.....	40	25,000.....	250
1,000.....	50	50,000.....	350
2,500.....	80		

TABLE GG.—ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED PERCENTAGE

[Range of 2 chances out of 3]

Estimated percentage	Base of percentage					
	500	1,000	2,500	10,000	25,000	100,000
2 or 98.....	1.3	0.9	0.5	0.3	0.1	0.1
5 or 95.....	2.0	1.4	0.9	0.4	0.2	0.1
10 or 90.....	2.8	2.0	1.2	0.6	0.3	0.2
25 or 75.....	3.8	2.7	1.5	0.7	0.4	0.2
50.....	4.4	3.1	1.6	0.8	0.5	0.3

The sampling variability of the medians presented in certain tables (median age, median years of school completed, and median income) depends on the size of the base and on the distribution on which the median is based. An approximate method for measuring the reliability of an estimated median is to determine an interval about the estimated median, such that there is a stated degree of confidence that the true median lies within the interval. As the first step in estimating the upper and lower limits of the interval (that is, the confidence limits) about the median, compute one-half the number reporting (designated $\frac{N}{2}$) on the characteristic on which the median is based. By the methods outlined in other parts of this section, compute the standard error of $\frac{N}{2}$. Subtract this standard error from $\frac{N}{2}$. Cumulate the frequencies (in the table on which the median is based) up to the interval containing the difference between $\frac{N}{2}$ and its standard error, and by linear interpolation obtain a value corresponding to this number. In a corresponding manner, add the standard error to $\frac{N}{2}$, cumulate the frequencies in the table, and obtain a value corresponding to the sum of $\frac{N}{2}$ and its standard error. The chances are about 2

²⁰ The estimates of sampling variability are based on calculations from a preliminary sample of the 1960 Census results. Further estimates are being calculated and will be made available at a later date.

out of 3 that the median would lie between these two values. The range for 19 chances out of 20 and for 99 in 100 can be computed in a similar manner by multiplying the standard error by the appropriate factors before subtracting from and adding to one-half the number reporting the characteristic. Interpolation to obtain the values corresponding to these numbers gives the confidence limits for the median.

The sampling variability of a mean, such as a number of children ever born per 1,000 women, or mean income, presented in certain tables, depends on the variability of the distribution on which the mean is based, the size of the sample, the sample design (for example, the use of households as the sampling unit), and the use of ratio estimates. Formulae for computing the variability of a mean in simple random sampling can be found in textbooks on statistics. Although the estimated distribution on which a given mean is based may not be published in the detailed tables which follow, an approximation to the variability of the mean may be obtained by using a comparable distribution for a larger area or for a similar population group. A rough estimate of the sampling variability of means in this report may then be obtained by multiplying the figure thus derived by the factor corresponding to it in table HH.

TABLE HH.—FACTOR TO BE APPLIED TO STANDARD ERRORS

Characteristic	Factor	Characteristic	Factor
Age.....	0.8	Household relationship and unrelated individuals.....	1.0
Nativity and parentage.....	1.4	Families and subfamilies.....	1.0
Color or race.....	1.8	Children ever born.....	1.0
Farm-nonfarm residence.....	1.8		
Place of birth.....	1.2	Employment status.....	1.0
Country of origin.....	1.4	Hours worked.....	1.0
Mother tongue.....	1.4	Weeks worked in 1959.....	1.0
Year moved into present house.....	1.8	Year last worked.....	1.0
Residence in 1955.....	1.8		
Year and type of school in which enrolled.....	0.8	Occupation.....	1.0
Years of school completed.....	1.0	Industry.....	1.0
Veteran status of civilian males.....	1.0	Place of work.....	1.0
Marital status.....	1.0	Means of transportation to work.....	1.0
Presence of spouse.....	1.0	Class of worker.....	1.0
Married couples.....	1.0	Earnings in 1959.....	1.0
Whether married more than once.....	1.0	Income in 1959.....	1.0

For most characteristics, the use of the household as a sampling unit increases the standard error above what would be expected for a simple random sample of persons taken with the same sampling fraction. In particular, sample items which tend to have the same value for all members of a household (e.g., race or residence in 1955) may have a considerably higher variance than if a sample of persons had been used. However, for many characteristics, the standard error is reduced below what would be expected for a simple random sample of persons because of geographic stratification in the selection of the sample and the use of ratio estimation.

Table JJ shows standard errors for estimated numbers of persons depending on the population of the place (city, county, State). Like table FF, it does not show standard errors for estimated numbers larger than 50,000 for the reasons stated previously. Table HH provides a factor by which the standard errors shown in table JJ should be multiplied to adjust for the combined effect of the sample design, the estimation procedure, and the population of the area over which the estimate is calculated.

To estimate a somewhat more precise standard error for a given characteristic, locate in table HH the factor applying to the characteristic. Where data are shown as cross-classifications of two characteristics, locate each characteristic in table HH. The factor to be used for any cross-classification will usually lie between the value of the factors. When a given characteristic is cross-classified in the extensive detail (e.g., by single years

of age), the factor to be used is the smaller one shown in table HH. Where a characteristic is cross-classified in broad groups (or used in broad groups), the factor to be used in table HH should be closer to the larger one. Multiply the standard error given for the size of estimate and the population of the area as shown in table JJ by this factor from table HH. The result of this multiplication is the approximate standard error. Similarly, to obtain a somewhat more precise estimate of the standard error of a percentage, multiply the standard error as shown in table GG by the factor from table HH. For most estimates, linear interpolation in tables GG and JJ will provide reasonably accurate results.

Illustration: Table 232 shows that there are 107,267 persons aged 80 years in the Northeast and that 44,266, or 41.3 percent of them, are males. Table JJ shows that a rough approximation of the standard error of the 44,266 males is about 327. Table HH shows that for characteristics on age, the standard errors in table JJ should be multiplied by a factor of 0.8. The factor of 0.8 times 327 is 262, which means the chances are approximately 2 out of 3 that the results of a complete census will not differ by more than 262 from the estimated 44,266. It also follows that there is only about 1 chance in 100 that a complete census result would differ by as much as 655, that is by about 2½ times the number estimated from tables HH and JJ. Table GG shows that a rough approximation to the standard error of the 41.3 percent of the 80-year-old persons in the Northeast who are males is about 0.3 percent. The factor of 0.8 times 0.3 percent or about 0.2 percent is the estimated standard error of the 41.3 percent.

TABLE JJ.—STANDARD ERROR OF ESTIMATED NUMBER

[For multiplying factors see table F and text; range of 2 chances out of 3]

Estimated number	Population of area ¹							
	1,000	10,000	25,000	100,000	250,000	1,000,000	5,000,000	15,000,000
50.....	15	15	15	15	15	15	15	15
100.....	20	20	20	20	20	20	20	20
250.....	25	30	30	30	30	30	30	30
500.....	25	40	40	40	40	40	40	40
1,000.....	0	50	50	50	50	50	50	50
2,500.....		70	70	80	80	80	80	80
5,000.....		80	100	110	110	110	110	110
10,000.....		0	120	150	150	150	150	150
15,000.....			120	180	190	190	190	190
25,000.....			0	210	230	240	250	250
50,000.....				250	310	340	350	350

¹ An area is the smallest complete geographic area to which the estimate under consideration pertains. Thus, the area may be the State, city, county, standard metropolitan statistical area, urbanized area, or the urban or rural portion of the State or county. The rural-farm or rural-nonfarm population of the State or county, the non-white population, etc., do not represent complete areas.

COMPARABILITY OF COMPLETE-COUNT AND SAMPLE DATA

For the characteristics covered on a complete-count basis in chapter B (i.e., sex, race, age, marital status, and household relationship), chapters C and D present comparable 25-percent sample statistics. A comparison of selected complete-count and sample statistics is given in table KK.

Most of the differences between the complete counts and the corresponding 25-percent sample estimates exceed the differences that would be observed if there were no biases in sample selection. Among the largest differences are those for primary individuals and for nonrelatives of heads of households.

The 25-percent sample as published tended to underrepresent primary individuals by about 4 percent. Investigation of available data suggests that this difference arises primarily in the sample designation. The procedure for selecting the sample would have produced unbiased results if the design had been carried out according to instructions. The designation of the sample by the enumerator at the time he was canvassing was a

low-cost procedure, which created some opportunity for undetected errors to occur and made control difficult.

For nonrelatives of heads, there is a much larger difference (10 percent) between the complete count and the sample. The evidence now available suggests that this difference is not en-

tirely due to sample designation. Other possible factors include (1) more detailed relationship categories on the sample than on the complete-count questionnaire and (2) greater refinement in allocating nonresponses on relationship in establishing the edited sample record.

Table KK.—COMPARISON OF COMPLETE-COUNT AND SAMPLE DATA FOR SELECTED CHARACTERISTICS, FOR THE UNITED STATES, URBAN AND RURAL: 1960

[Selected characteristics are those for which complete-count and sample data are available. Minus sign (-) indicates sample lower than complete count. Percent not shown where less than 0.1 or where base is less than 200]

Subject	United States				Urban				Rural			
	Complete count	Sample	Difference		Complete count	Sample	Difference		Complete count	Sample	Difference	
			Number	Per cent			Number	Per cent			Number	Per cent
SEX												
Total population.....	179,323,175	179,825,671	2,496	-----	125,268,750	125,283,783	15,033	-----	54,054,425	54,041,888	-12,537	-----
Male.....	88,331,494	88,303,113	-28,381	-----	60,733,005	60,718,867	-14,138	-----	27,598,489	27,584,246	-14,243	-0.1
Female.....	90,991,681	91,022,558	30,877	-----	64,535,745	64,564,916	29,171	-----	26,456,936	26,457,642	1,706	-----
COLOR AND AGE												
Total, all ages.....	179,323,175	179,825,671	2,496	-----	125,268,750	125,283,783	15,033	-----	54,054,425	54,041,888	-12,537	-----
Under 5 years.....	20,320,901	20,321,864	963	-----	14,060,110	14,062,283	2,173	-----	6,260,791	6,259,581	-1,210	-----
5 to 9 years.....	18,691,780	18,695,145	3,365	-0.2	12,608,625	12,581,679	-27,046	-0.2	6,083,155	6,077,566	-5,589	-0.1
10 to 14 years.....	16,773,492	16,815,970	42,478	0.3	11,047,515	11,081,269	33,754	0.3	5,734,701	5,734,701	0	0.0
15 to 19 years.....	13,219,243	13,287,439	68,196	0.5	8,731,694	8,776,911	45,217	0.5	4,487,540	4,510,528	22,979	0.5
20 to 24 years.....	10,800,761	10,803,189	2,408	-----	7,724,250	7,729,622	5,372	0.1	3,076,511	3,073,647	-2,864	-0.1
25 to 29 years.....	10,899,124	10,870,386	-28,738	-----	7,845,275	7,855,153	9,878	0.1	3,023,849	3,015,233	-8,616	-0.3
30 to 34 years.....	11,049,186	11,051,709	2,523	-----	8,042,742	8,036,802	-5,940	-0.1	3,306,444	3,314,907	8,463	0.3
35 to 39 years.....	12,481,109	12,503,316	22,207	0.2	9,044,123	9,062,896	18,773	0.2	3,438,986	3,445,420	6,434	0.2
40 to 44 years.....	11,600,243	11,597,218	-3,025	-0.3	8,325,027	8,312,259	-12,768	-0.2	3,275,216	3,254,957	-20,259	-0.6
45 to 49 years.....	10,879,485	10,928,878	49,393	0.5	7,756,492	7,759,816	3,324	-----	3,122,993	3,169,062	46,069	1.5
50 to 54 years.....	9,605,954	9,696,498	90,544	0.9	6,851,113	6,888,194	37,081	0.5	2,754,841	2,808,304	53,463	1.9
55 to 59 years.....	8,429,865	8,595,947	166,082	2.0	6,014,592	6,125,499	110,907	1.8	2,415,273	2,470,448	55,175	2.3
60 to 64 years.....	7,142,452	7,111,897	-30,555	-0.4	5,091,000	5,072,871	-18,129	-0.4	2,051,462	2,039,026	-12,426	-0.6
65 to 74 years.....	10,990,842	10,847,889	-142,953	-1.4	7,716,535	7,638,863	-77,682	-1.0	3,280,307	3,209,046	-71,261	-2.2
75 years and over.....	5,562,738	5,359,338	-203,400	-3.7	3,809,657	3,699,876	-109,781	-2.9	1,753,081	1,659,462	-93,619	-5.3
Median age..... years.....	29.5	29.5	-----	-----	30.4	30.3	-----	-----	27.3	27.3	-----	-----
White, all ages.....	158,831,732	158,837,671	5,939	-----	110,428,332	110,442,666	14,334	-----	48,403,400	48,395,005	-8,395	-----
Under 5 years.....	17,368,552	17,365,558	-2,994	-----	11,938,567	11,940,605	2,038	-----	5,419,985	5,425,053	5,068	0.1
5 to 9 years.....	16,087,542	16,087,397	-145	-0.1	10,801,452	10,780,883	-20,569	-0.2	5,286,090	5,286,514	424	-----
10 to 14 years.....	14,638,892	14,677,328	38,436	0.3	9,633,770	9,661,135	27,365	0.3	5,005,122	5,016,193	11,071	0.2
15 to 19 years.....	11,608,229	11,666,367	58,138	0.5	7,692,103	7,729,401	37,298	0.5	3,916,126	3,936,966	20,840	0.5
20 to 24 years.....	9,470,779	9,479,847	9,068	0.1	6,748,276	6,756,968	8,692	0.1	2,722,603	2,722,879	276	-----
25 to 29 years.....	9,555,535	9,555,458	-77	-----	6,819,797	6,835,860	16,063	0.2	2,729,788	2,729,698	-90	-0.2
30 to 34 years.....	10,588,830	10,596,064	7,234	0.1	7,584,916	7,582,126	-2,790	-----	3,023,914	3,033,988	10,074	0.3
35 to 39 years.....	11,140,841	11,170,430	29,589	0.3	7,983,807	8,003,766	19,959	0.2	3,157,034	3,166,864	9,830	0.3
40 to 44 years.....	10,423,020	10,393,094	-29,926	-0.3	7,411,845	7,401,433	-10,412	-0.1	3,011,175	2,991,661	-19,514	-0.6
45 to 49 years.....	9,785,162	9,838,979	53,817	0.5	6,925,123	6,935,794	10,671	0.2	2,800,039	2,903,185	43,146	1.5
50 to 54 years.....	8,693,528	8,777,120	83,592	1.0	6,164,717	6,201,723	37,006	0.6	2,528,811	2,575,397	46,586	1.8
55 to 59 years.....	7,626,211	7,761,453	135,242	1.8	5,414,713	5,505,393	90,680	1.7	2,211,498	2,256,060	44,562	2.0
60 to 64 years.....	6,560,678	6,519,629	-41,049	-0.6	4,656,907	4,639,091	-17,816	-0.4	1,893,766	1,880,938	-12,828	-0.7
65 to 74 years.....	10,130,266	9,981,183	-149,083	-1.5	7,118,471	7,030,616	-87,855	-1.1	3,011,795	2,941,567	-70,228	-2.3
75 years and over.....	5,173,622	4,977,764	-195,858	-3.8	3,553,868	3,448,972	-104,896	-3.0	1,619,754	1,528,792	-90,962	-5.6
Median age..... years.....	30.3	30.3	-----	-----	31.0	31.0	-----	-----	28.4	28.3	-----	-----
Nonwhite, all ages.....	20,491,443	20,488,000	-3,443	-----	14,840,418	14,841,117	699	-----	5,651,025	5,646,883	-4,142	-0.1
Under 5 years.....	2,962,349	2,956,306	-6,043	-0.2	2,121,543	2,121,778	235	-----	840,806	834,528	-6,278	-0.7
5 to 9 years.....	2,604,238	2,591,748	-12,490	-0.5	1,807,173	1,800,696	-6,477	-0.4	797,065	791,052	-6,013	-0.8
10 to 14 years.....	2,134,600	2,138,642	4,042	0.2	1,413,745	1,420,134	6,389	0.5	720,855	718,508	-2,347	-0.3
15 to 19 years.....	1,611,014	1,621,072	10,058	0.6	1,039,591	1,047,610	8,019	0.8	571,423	573,562	2,139	0.4
20 to 24 years.....	1,328,982	1,323,322	-5,660	-0.5	975,974	972,554	-3,420	-0.4	354,008	350,768	-3,240	-0.9
25 to 29 years.....	1,313,539	1,304,928	-8,611	-0.7	1,025,478	1,019,293	-6,185	-0.6	288,061	285,635	-2,426	-0.8
30 to 34 years.....	1,380,356	1,365,645	-14,711	-1.1	1,077,826	1,074,676	-3,150	-0.3	282,530	280,969	-1,561	-0.6
35 to 39 years.....	1,340,263	1,337,836	-2,427	-0.2	1,060,316	1,059,180	-1,136	-0.1	279,952	278,756	-1,196	-0.4
40 to 44 years.....	1,177,223	1,174,122	-3,101	-0.3	913,182	910,826	-2,356	-0.3	264,041	263,296	-745	-0.3
45 to 49 years.....	1,094,323	1,089,899	-4,424	-0.4	831,369	824,022	-7,347	-0.9	262,954	265,877	2,923	1.1
50 to 54 years.....	912,426	919,378	6,952	0.8	666,396	668,471	2,075	-----	226,030	232,907	6,877	3.0
55 to 59 years.....	803,654	834,494	30,840	3.8	599,879	620,106	20,227	3.4	203,775	214,388	10,613	5.2
60 to 64 years.....	591,779	592,288	509	0.1	434,093	438,780	4,687	1.1	167,686	168,488	802	0.5
65 to 74 years.....	866,576	866,716	140	-----	598,064	599,237	1,173	0.2	268,512	267,479	-1,033	-0.4
75 years and over.....	389,116	381,574	-7,542	-1.9	255,789	250,904	-4,885	-1.9	133,327	130,670	-2,657	-2.0
Median age..... years.....	23.5	23.5	-----	-----	25.3	25.3	-----	-----	19.1	19.2	-----	-----
MARITAL STATUS												
Total, 14 and over.....	126,276,044	126,276,547	503	-----	89,315,706	89,326,318	10,612	-----	36,960,338	36,950,229	-10,109	-----
Single.....	27,792,782	27,634,021	-158,761	-0.6	19,371,603	19,312,084	-59,519	-0.3	8,421,179	8,321,957	-99,222	-1.2
Married.....	85,165,281	85,535,707	369,426	0.4	59,807,660	60,019,436	211,776	0.4	25,358,721	25,516,271	157,550	0.6
Separated.....	2,214,418	2,191,091	-23,327	-1.1	1,777,819	1,769,437	-8,382	-0.5	436,599	421,654	-14,945	-3.4
Widowed.....	10,164,661	9,952,517	-212,144	-2.1	7,535,225	7,434,383	-100,842	-1.3	2,579,436	2,518,134	-61,302	-2.4
Divorced.....	3,152,320	3,154,302	1,982	0.1	2,551,318	2,560,436	9,117	0.4	601,002	593,867	-7,135	-1.2

Table KK.—COMPARISON OF COMPLETE-COUNT AND SAMPLE DATA FOR SELECTED CHARACTERISTICS, FOR THE UNITED STATES, URBAN AND RURAL: 1960—Continued

Subject	United States				Urban				Rural			
	Complete count	Sample	Difference		Complete count	Sample	Difference		Complete count	Sample	Difference	
			Number	Per cent			Number	Per cent			Number	Per cent
MARITAL STATUS—Con.												
White, 14 and over.....	113,132,265	113,122,902	-9,363		79,595,000	79,605,235	10,235		33,537,265	33,517,667	-19,598	-0.1
Single.....	24,348,642	24,214,359	-134,283	-0.6	17,020,010	16,973,977	-46,033	-0.3	7,328,632	7,240,382	-88,250	-1.2
Married.....	77,137,049	77,435,730	298,681	0.4	53,746,861	53,912,743	165,882	0.3	23,390,188	23,522,987	132,799	0.6
Separated.....	1,293,828	1,276,030	-17,798	-1.4	1,011,063	1,003,308	-7,755	-0.8	282,765	272,722	-10,043	-3.6
Widowed.....	8,894,500	8,718,822	-175,678	-2.0	6,627,926	6,508,856	-119,070	-1.8	2,266,574	2,209,966	-56,608	-2.5
Divorced.....	2,752,074	2,753,991	1,917	0.1	2,200,203	2,209,659	9,456	0.4	551,871	544,332	-7,539	-1.4
Nonwhite, 14 and over.....	13,143,779	13,153,645	9,866	0.1	9,720,706	9,721,083	377		3,423,073	3,432,562	9,489	0.3
Single.....	3,444,140	3,419,662	-24,478	-0.7	2,351,593	2,338,087	-13,506	-0.6	1,092,547	1,081,575	-10,972	-1.0
Married.....	8,029,232	8,099,977	70,745	0.9	6,060,690	6,106,693	45,994	0.8	1,968,533	1,993,284	24,751	1.3
Separated.....	920,590	915,061	-5,529	-0.6	766,756	766,129	-627	-0.1	153,834	148,932	-4,902	-3.2
Widowed.....	1,270,161	1,233,695	-36,466	-2.9	957,299	925,527	-31,772	-3.3	312,862	308,168	-4,694	-1.5
Divorced.....	400,246	400,311	65		351,115	350,770	-349	-0.1	49,131	49,535	404	0.8
RELATIONSHIP												
Total												
Population in households.....	174,373,302	174,423,977	50,675		121,952,660	122,000,037	47,377		52,420,642	52,423,940	3,298	
Head of household.....	53,021,061	53,023,935	2,874		38,315,788	38,320,421	4,633		14,705,273	14,703,514	-1,759	
Head of primary family.....	44,669,793	45,027,130	357,337	0.8	31,641,435	31,858,796	217,361	0.7	13,028,358	13,168,834	139,976	1.1
Primary individual.....	8,351,208	7,990,805	-360,403	-4.3	6,674,353	6,461,625	-212,728	-3.2	1,676,915	1,535,180	-141,735	-8.5
Wife of head.....	39,210,069	39,474,924	264,855	0.7	27,462,429	27,628,231	165,802	0.6	11,747,640	11,846,698	99,058	0.8
Children under 18 of head.....	59,582,448	59,924,605	342,157	0.6	40,246,188	40,451,244	205,056	0.5	19,336,260	19,473,861	137,601	0.7
Other relative of head.....	19,591,731	19,332,382	-259,349	-1.3	13,561,226	13,431,261	-129,965	-1.0	6,030,505	5,901,121	-129,384	-2.1
Nonrelative of head.....	2,967,993	2,668,131	-299,862	-10.1	2,367,029	2,168,880	-198,149	-8.4	600,964	499,251	-101,713	-16.9
Population in group quarters.....	4,949,873	4,901,676	-48,197	-1.0	3,316,090	3,283,724	-32,366	-1.0	1,633,783	1,617,952	-15,831	-1.0
White												
Population in households.....	154,551,789	154,584,507	32,718		107,517,929	107,550,987	33,058		47,033,860	47,033,520	-340	
Head of household.....	47,868,403	47,868,537	134		34,332,128	34,338,587	6,459		13,536,275	13,529,950	-6,325	
Head of primary family.....	40,498,315	40,812,035	313,720	0.8	28,474,901	28,665,762	190,861	0.7	12,023,414	12,146,273	122,859	1.0
Primary individual.....	7,370,088	7,056,502	-313,586	-4.3	5,857,227	5,672,825	-184,402	-3.1	1,512,861	1,383,677	-129,184	-8.5
Wife of head.....	36,069,049	36,292,041	222,992	0.6	25,120,121	25,259,599	139,478	0.6	9,948,928	11,032,442	83,514	0.8
Children under 18 of head.....	52,480,928	52,793,626	312,698	0.6	35,274,650	35,454,303	179,653	0.5	17,206,278	17,339,323	133,045	0.8
Other relative of head.....	15,871,949	15,621,209	-250,740	-1.6	11,028,659	10,902,411	-126,248	-1.1	4,843,290	4,718,798	-124,492	-2.6
Nonrelative of head.....	2,261,460	2,009,094	-252,366	-11.2	1,762,371	1,596,087	-166,284	-9.4	499,089	413,007	-86,082	-17.2
Population in group quarters.....	4,279,943	4,253,172	-26,771	-0.6	2,910,403	2,891,683	-18,720	-0.6	1,369,540	1,361,489	-8,051	-0.6
Nonwhite												
Population in households.....	19,821,513	19,839,470	17,957	0.1	14,434,731	14,449,050	14,319	0.1	5,386,782	5,390,420	3,638	0.1
Head of household.....	5,152,658	5,155,398	2,740	0.1	3,983,660	3,981,834	-1,826		1,188,998	1,173,564	-5,434	-0.4
Head of primary family.....	4,171,478	4,215,095	43,617	1.0	3,166,534	3,193,034	26,500	0.8	1,004,944	1,022,061	17,117	1.7
Primary individual.....	981,180	940,303	-40,877	-4.2	817,126	788,800	-28,326	-3.5	164,054	151,503	-12,551	-7.7
Wife of head.....	3,141,020	3,182,883	41,863	1.3	2,342,308	2,368,632	26,324	1.1	798,712	814,251	15,539	1.9
Children under 18 of head.....	7,101,520	7,130,979	29,459	0.4	4,971,538	4,996,941	25,403	0.5	2,129,982	2,134,038	4,056	0.2
Other relative of head.....	3,719,782	3,711,173	-8,609	-0.2	2,532,567	2,528,850	-3,717	-0.1	1,187,215	1,182,323	-4,892	-0.4
Nonrelative of head.....	705,533	659,037	-47,496	-6.7	604,658	572,793	-31,865	-5.3	101,875	86,244	-15,631	-15.3
Population in group quarters.....	669,930	648,504	-21,426	-3.2	405,687	392,041	-13,646	-3.4	264,243	256,463	-7,780	-2.9